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SOME OBSERVATIONS ON THE PATHOLOGY AND PREVAILING DISEASES OF HOT CLIMATES. By A. PEARSON, *Member of the London College of Surgeons, and Surgeon in the Service of the East India Company.*

(Continued from vol. xi, pp. 200—267.)

IT may not appear to come within the description of the diseases of hot climates, to consider scurvy; but what will be offered upon that subject, relates to a modification of the disease, which as far as I can learn is peculiar to such climates, or affects those who have resided in them previously.

The attention of the writer was drawn to this subject by the disease in question having occurred in an East India ship in which he was employed as surgeon; he knows that it has appeared in many others during the late war; and as, both in its appearance and progress, it differs from the disease as usually seen, he expected before this time to have met with an account of it; a detail of the leading symptoms will point out in what respects it resembled or differed from the disease as generally described. It occurred during a homeward passage from China to England; there were from first to last about one hundred and forty affected with it; eight died of the disease; and on the ship's arrival at St. Helena, there was a necessity for landing eighty; these were recovered by the refreshments there; and by the use of lime-juice, the disease was kept stationary till the ship's arrival in England.

GENERAL SYMPTOMS.

First stage.—Slight febrile affection indicated by the skin and pulse, facies scorbutica, morning lassitude, general pains, breathlessness on motion, and swelling of the extremities.

Second stage.—Increase of the swellings both in the trunk and lower extremities, greater in the former in the morning, and in the latter at night. Dyspnœa ascribed

to a pain in the breast felt most severely under the sternum, or in the left side. This was occasionally aggravated and most severely felt when the swelling receded, or during the night; on such occasions a sense of tightness across the breast, sometimes of a lump moving its place, excited such a dyspnœa as to render the patient apprehensive of suffocation. Stiffness of the flexors, pain along the muscles, obstinate costiveness, vomiting of cathartics, and voiding of enemata without effect.

Third stage.—The swellings receded from the extremities, at first occasionally, and afterwards permanently, when that in the abdomen became greater, and the difficulty of breathing was increased. Ineffectual tenesmus, much debility, cardialgia, severe retchings, pain of the breast of a more acute kind than before, a sense of heavy griping in the abdomen, which seemed to occasion great agony, with constant restlessness and inability to sleep; these last were considered as immediate forerunners of a fatal event.

Symptoms not general.

The itching, swelling and bleeding of the gums, their putrescence, and the spots and blotches of the skin, which have been reckoned pathognomic of the disease, were totally wanting in the worst cases, and in more than two-thirds of the remainder. In the greater part even of these instances where they occurred, they could only be detected by hard rubbing of the gums, or a close inspection of the skin. In three cases only did the disease advance in the common form, rapidly indeed, but with a comparatively advantageous progress. There were no cases of scorbutic ulcer; and in two persons who had ulcers of the leg at the time of the attack, although they assumed somewhat of the scorbutic appearance, there was no shooting of fungus. Anorexia and a quickened pulse were pretty general, and worms of the lumbrici kind, and symptoms of them, so much as to form a remarkable addition to the other complaints. In three or four places febrile complaints combined with and run into the disease; and in one case a paroxysm of fever attended the attack of the fatal symptoms: in this person the skin had been of an icteritious colour for some time before. Hæmorrhages from the nose occurred in three instances; from the lungs in two; and from the stomach in one. Several had a sense of contraction in the right side of the œsophagus, whether symptomatic of the worms or not I cannot determine. One person felt a singular instability and vacillation of limbs,

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in another there was a permanent dilatation of the pupils, with impaired vision. In one a bilious diarrhœa coming on spontaneously, relieved the symptoms much. In another the affection of the breast went off, and an ischuria took place, so complete as to render the use of the catheter necessary, and these affections alternated repeatedly.

The period in which the disease run its course differed much in various individuals. From a week to a month, dating from the time when they ceased to do duty. On dissection of a person who died of the disease, the principal, and indeed only morbid appearances, were a great quantity of serum in the cellular membrane, some also in the cavity of the abdomen; lumbrici ascarides unusually large and numerous in the ilium. The liver was considerably enlarged in its substance, but with very little organic disease; in one or two places a slight appearance of suppuration, resembling in consistence and size the matter of a very small furunculus. Swellings of the scrotum were not unfrequent, but were more common, and increased for a time in size while the patients were recovering, which they did very rapidly after arriving at St. Helena, under a fresh and vegetable diet with a plentiful supply of limes. The weather had suddenly altered from being warm in the S. E. trade wind, to cold, when doubling the Cape of Good Hope.

It will be at once seen that the symptoms differ materially from those which are generally detailed, not corresponding to the definition of Dr. Cullen,* or to the corrected and more generally applicable one of Dr. Trotter,† but it is impossible to question the identity of the disease. It may be of use to those in situations exposed to it to be aware of the possibility of its approach in such a form, and also that it is a more formidable species of the disease, than that which is generally met with. That which approaches nearest to it is the account of a scurvy making its appearance in the American ship of war in the East Indies, given at p. 278 of the third edition of Dr. Lind's Treatise. From having had but a small supply of lime-juice at first,

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* In regione frigida post victum putrescentem salitum, ex animalibus confectum, deficiente simul materia vegetabili recente; asthenia stomacace; in cute maculæ diversicolores, plerumque livescentes præsertim ad pilorum radices.

† Asthenia, stomacace, in cute maculæ diversicolores, plerumque livescentes; deficiente simul vegetabili materie recente, eundemque vehemente ingerendi desiderio.

from the length of the preceding voyage, and from having left China at a season when it was not procurable, we were without a sufficiency of that essential remedy. The best substitute we could think of was tamarinds, of which forty pounds had been provided, and the infusion by itself, or in combination with decoction of sassafras, or wine and sugar, given with benefit and effect. Purgatives and the body kept lax by tart. solub. p. rhæi p. inf. sennæ, were necessary. Sudorifics sometimes afforded a temporay relief. Nitre or camphire. Aq. ammonia with a few drops of tinct. opii given in warm wine and water till a perspiration broke out, and keeping it up by diluents, were of use in relieving the affection of the breast, whenever it became much aggravated. Blisters and squill medicines also seemed useful. Vermifuge medicines, where indicated, P. stanni; sem. santon. & calomel. Fomentations, ol. palmæ, and s. v. camphorat. for the stiffened flexors. The disease was kept under during the passage from St. Helena to England by lime-juice only, given from ℥ij to ℥vj. daily; no doubt the concrete acid might be an useful substitute, but the nearer the acid is to the state in which it is while in the fruit, I apprehend it will prove the more effectual. A supply of fresh provision from the commander's table was one of our most efficacious resources.*

From

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* In order to convey an idea of the state of constitution of those affected with this disease, the following statement is offered, premising that a merchant ship's company obtained in war time must necessarily have been subjected to many depressing influences.

The ship in question sailed from Spithead, April 6, 1795. Ship's company 175 men, inclusive number on board 210. Were eight or nine weeks on the passage to St. Helena; remained there till July, receiving supplies of fresh provisions and vegetables, but not regularly.

Left St. Helena with four hundred troops embarked; a healthy passage of four weeks to the Cape of Good Hope, where, from its being then in a state of siege, no refreshments were procurable.

Proceeded to Madras with only the ship's company on board; arrived in the end of September.

Remained at Madras a fortnight, receiving the customary refreshments there, which are plentiful, but not of the best description.

Left Madras in the middle of October, attached to the expedition under Admiral Rainier for the reduction of the Dutch settlements, having on board upwards of three hundred native troops.

From this time to the end of December, passed a fortnight at Penang Malacca, when the ship sailed from the last mentioned harbour, and was nearly three months at sea, by an eastern passage to her ultimate destination in China, having only the ship's company and a few invalids on board.

From the beginning of April to the middle of May which is an unhealthy season of the year, the ship was anchored at Second Bar in the river of Canton,

From the statement contained in the note may be inferred what causes predisposed and were favorable to the attack of the disease. I am not without suspicion, that the mercurial treatment of these complaints, which prevailed previously to the ship's departure from China, may have deserved to be enumerated with them. That there is reason to apprehend such an effect from it, will not be an objection to the having recourse to it in cases of urgency, while it may be allowed in connexion with other practical considerations, to limit its administration in those which are not so, or to afford a caution with regard to the indiscriminate use of calomel as a cathartic, when other remedies of that class will equally well answer the purpose.

It seems unnecessary to proceed farther in detailing the treatment, as the curative means pointed out by Lind and Trotter are equally applicable to this as to the forms of the disease which they describe; and it would be well for our profession, if we could always have the aid of as faithful observers, and judicious guides of practice.

There would be still less chance of offering any thing satisfactory as to the proximate cause or ratio symptomatum. The operation of the remote causes may be supposed to induce such a state of the vital powers and actions as may be accompanied by a debility and relaxation of fibre; by an altered state of the circulating fluid, and an imperfect oxygenation of it; or a defective action of the lymphatic and venous absorbents; but no one of these can be considered but as effects of the general state, and not as a proximate cause to account for the symptoms, or why so great and general a failure of the functions so quickly takes place, from a state of general health, and without pyrexia.

I would likewise refer to these authors, and to a consideration of the remote causes, for what are likely to be the best means of prevention. Dry air by means of stoves, warm clothing, abundance of water, bread instead of rice, and yams or potatoes, served to the ship's company with their salt provisions; fresh provisions, vegetables and fruits where attainable. These resources are as well known as their beneficial effects are limitted; and that the havock

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Canton, a very insalubrious situation, during which time fever and dysentery were universal among the ship's company.

With their constitutions injured by these causes and preceding debauchery, their provisions also the worse for having been long kept, there was another eastern passage to be undertaken; and in the course of it, upwards of five months to St. Helena, the disease in question broke out.

formerly made by the scurvy among our fleets is now diminished, proceeds not so much from our knowing better how to treat the disease, as that an improved state of discipline and attention to the health of the men have rendered its occurrence more rare than in former times.

The conviction of this fact, and other considerations, lead to the expression of a wish that the seamen in the merchant service might become objects of the care and attention of the legislature, or of such members of the community as can best obtain its interference in their behalf. There is actually no consistent code of laws, or set of regulations to secure their well being and proper treatment as men, and at the same time to act as a due restraint upon the evil propensities and injurious habits which are too prevalent among them, owing perhaps to the want of some such protecting influence.

In the preceding series of observations, I have adverted to the diseases which are most generally met with in hot climates. Tetanus, supposed to be frequent, has not often come under my observation. In one case, where it succeeded an operation, the patient died; in two others they recovered from the immediate effects of the disease. I am at a loss to what to ascribe any beneficial effect in these cases, as every means whose operation did not interfere with each other were made trial of. Purging with calomel in the beginning; plasters of opium and camphor to the seat of the pain in the sternum; friction with liniments of the stimulant kind on the jaws and neck; above all, frequent use of the warm bath from 92° to 96° of Fahrenheit, for fifteen or twenty minutes at a time, and friction on the affected muscles with mercurial ointment till ptyalism is brought on. Musk, castor and opium internally, especially before the coming on of the convulsive or spastic affections of the muscles.

The dry belly-ache is said to be a frequent disease in hot climates, so much so at particular times, as to appear to be epidemic; and certainly, where I have met with it, several have been affected at the same time, but that probably arose from an identity in circumstances of situation and habits. When a train of symptoms resembling it occurs, it will be useful to ascertain whether it is the colica stercorea or that arising from lead; and the first indication to be attended to, is to evacuate the great intestines by terebinthinate, purging or emollient glysters; their use and operation are indispensable, and will be much aided by the warm bath, while, at the same time, the other means pointed out by authors may be practised.

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It has become a question I believe whether coup de soleil ought to be treated by evacuation, or as a disease of debility. I have not data from which to decide, nor to form an opinion for myself better than a probable one. In the few instances which have occurred, the symptoms of congestion in the head and increased action were so obvious, as to seem to the most inexperienced observer to require depletion and the antiphlogistic treatment. At the same time I am convinced, that men from fatigue and exposure to the rays of the sun in a hot climate, often fall down, as it is said, from the effects of a coup de soleil, when it is in fact a syncope. It cannot be difficult to discriminate betwixt these two cases, nor to determine upon which is the injurious, and which the proper mode of treatment.

Mr. F. aged about nineteen, had been intoxicated the preceding evening, and slept exposed to the rays of the morning sun with his head uncovered. Thermometer at 82°. He was with difficulty awakened, when he was attacked with strong delirium and occasional convulsions. Skin very hot; face flushed; pulse full and quick; eyes blood-shot. Blood was taken to nearly fourteen ounces, which, as it flowed from the vein, communicated nearly a scalding sensation to the fingers; the head, face, and neck were bathed with a solution of muriat of ammonia in vinegar; he was ordered inf. sennæ and tamarind, afterwards a purge with calomel; antiphlogistic treatment, and infusion of tamarinds for drink. During two or three days succeeding the attack he had occasional relapses of the delirium and convulsions, afterwards he was free from complaint, but much weakened. Such a train of symptoms as the above I would expect to meet with in a person who had suffered a coup de soleil; and there can be little question, that if the patient had remained a short while longer unnoticed, that he would have awoke no more.

As an addition to the collection of facts towards a history of the late epidemical catarrh, which have been collected by Dr. Beddoes, and published in the Medical and Physical Journal, I beg leave to offer the following sketch of the disease, as it appeared in China; whence there is every reason for supposing the influenza to have originated, and where, from being peculiarly situated, I had during the month of September, 1800, a great many cases under treatment.

1800. At Whampsa, in China.

About the 25th of September, several of the people were attacked with a catarrhal fever, which quickly spread thro' the ship's company. As it was so general, and at the same time so uniform in its symptoms, instead of detailing every particular case, I will attempt a description of it, as it appeared, and was suffered.

Having so many to attend to while I was myself pretty severely affected, left but little leisure to arrange or commit to paper observations in any other form; a diary was kept of the names and prescriptions. I shall first mention the most general appearances of them, and then advert to any particulars which a difference of constitution or other circumstances might have produced.

Three days were the limits of its continuance in the febrile form, but the pectoral symptoms were of longer duration.

Its attack was sudden, with an uncommon degree of lassitude and sense of weakness, with transient chills. These were followed by a coryza, severe cough, pain of the breast, dyspnœa, sense of stuffing, and scanty expectoration. The throat was affected in about two-thirds of those attacked. There was head-ach, principally of the temples, with pain of the eye-balls, nausea, anorexia, and thirst at all times; the tongue was covered with a white crust, and the mouth felt clammy. There was a febrile exacerbation occurring twice in the twenty-four hours, at its height about noon and midnight; the former severest: in some these were preceded by chills. In general, the increased heat, sense of weakness, and frequency of pulse, came on without any such warning. In my own case the fever was always preceded by slight rigors; the pulse was always quick; in the febrile state often upwards of 120, regular but not strong in those of the most robust habits, in others weak and soft: at that time too there was frequently a tendency to a hurry of thought and incoherence, with flushing of the face, and throbbing of the temporal arteries. In more than one case bleeding at the nose occurred, which relieved those symptoms, and the fever abated.

At the beginning of the disease the belly was costive; after it run its course, it was easily moved by laxatives, or a spontaneous diarrhœa came on; in either case the diarrhœas were bilious and acrid, and produced a burning heat about the anus. At the same period too the expectoration became copious, purulent looking, and often tinged with blood, the cough was even more frequent and troublesome; and tho' the appetite returned and the strength

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was increasing, these symptoms continued for a week or a fortnight, after the abatement of the febrile symptoms; swelling and stiffness of the inguinal and axillary glands were frequent as the fever abated, and sometimes suppurated; in several there was otalgia, and in a few instances suppuration of the internal ear.

There were only six of the ship's company exempted from the attack of this disease, who had been either recently ill, or taking mercury.

The treatment was nearly as uniform as the symptoms of the disease. An emetic as soon as possible after the attack of the disease, purgatives of calomel and Glauber salts, afterwards frequent gentle laxatives, nitrous mixture with antimonial wine, or a mixture with spermaceti and acetum scilliticum, as the febrile or pectoral symptoms were predominant. Opiates during the febrile stage were uniformly hurtful, increasing the heat, irritation, and tendency to delirium, without procuring sleep; afterwards, when the primæ viæ were cleared, they were used with advantage in the evening doses of the spermaceti mixture.

Blood-letting was practised in only one case, where it seemed to be indicated by the severity of the pulmonary affection; but the increased sense of weakness, and other unfavourable symptoms which followed its use, prevented any farther trial of it. The prostration of strength, the weakness and quickness of pulse, seemed to indicate the use of bark, and it was given in some cases where the remission was most complete and the symptoms of pulmonary congestion least urgent, but with the effect of increasing every symptom of febrile irritation as well as the pain of the breast and difficulty of expectoration. It was not tried again till the state of convalescence rendered its administration adviseable and useful; calomel, so frequently had recourse to in febrile affections, appeared to have little advantage over other laxatives. In my own case, and in several others, after the fever was gone off, where symptoms of visceral obstruction had before existed, or were brought on, I gave one grain of calomel for ten or twelve successive nights, and two ounces of a solution of ant. tart. gr. ij. in aq. ℔jß. three times a day; this seemed to be useful in restoring the secretions of the bowels, and purgatives given afterwards brought off much bile and vitiated mucus; the convalescence was in general favorable. The same disease prevailed among the Lascars of some country ships, where its progress was similar, tho' the symptoms were milder. There had been an epidemical catarrh among the Chinese, which had nearly ceased before

fore our arrival; and among them, as well as the Portuguese at Macao, had been frequently fatal.

During some time before there had been wet weather, afterwards a few days when it was cool and the thermometer at 72°. When the disease came on, the winds were southerly; the thermometer 83° ad 90°. By the 15th of October the ship was again tolerably healthy.

There appear to me some circumstances in the following dissection, worth relating, though I do not see how it leads to any inferences of practical utility.

Mr. I. M. aged about twenty-two, was found dead in his bed at eight o'clock in the morning; it is probable he expired but a short time before, as the body had not entirely lost its temperature. He had on the preceding evening made some slight complaint of nausea, and pain in the epigastrium, but not in urgency so as to be particularly noticed. He was heard, by a gentleman who slept near him, to moan and be disturbed during the night; as that was frequently, and indeed generally the case, no inquiry was made; the usual means of recovery were had recourse to with no effect. It was judged proper to investigate the cause of the death by opening the body, which was done in the presence of two other surgeons. We were struck at first with the size of the head, and especially of the parietal bones being so disproportionately large. The membranes of the brain adhered more strongly than is usual to the cranium, and a considerable quantity of serum exuded on sawing it through. In all the course of the longitudinal sinus, the membranes were of a denser consistence than is common, hardening more and more till they arrived at the vertex, where, in the course of the sinus, and enclosed between the membranes, there was found a complete ossification of the size of a thumb-nail, a ragged point of which had pierced the internal membrane, and as it lay must have entered into and vellicated the brain. The membrane was in a similar state backwards to the transverse septum; and at the going off of the lateral sinuses, there was an ossification of the same size as the other, no part of which had penetrated the membranes. The brain appeared very large, and the membranes at this place adhered more strongly to it than is usual. In attempting to separate them, the instrument pierced one of the ventricles, and an unusual quantity of clear serum escaped; in that and the other ventricle, not less than ten ounces had been contained; the brain then collapsed. Nothing particular was to be felt in the plexus choroides, nor

any discernible alteration in the thalami of the optic nerves, neither indeed was there in the substance or consistence of the brain, except that the cineritious part appeared to be in a greater than common proportion.

It must appear surprising, that so much disease should exist without a greater derangement in the functions of the sensorium. Neither the external nor internal senses had appeared to be much impaired. He had been educated for the medical profession liberally, and though his acquirements were not in proportion, they were not remarkably deficient. He was subject to head-achs, and occasional lowness of spirits. On any unwonted excess he seemed at the time and for a few days afterwards to have a tendency to mania. His gesture and gait appeared to be vacillatory and unsteady; he had a correct musical ear, and played on the German flute with uncommon taste and execution. The eyes were lighter coloured than I ever saw them in any other person, and the pupils were always much dilated. From the whole of his skin there proceeded a peculiar and disagreeable fetor.

It is almost unnecessary to state that the thoughts submitted to the public through the medium of the Medical and Physical Journal, in this and three preceding papers, are observations merely, and do by no means aspire to be considered as treatises on the several subjects; that they do not claim to be founded on peculiar extent of experience, on sagacity of observation, depth of research, or ingenuity of reasoning. If they are found to bear upon points and facts of practical utility, and to furnish any clue to the minds of those members of the profession, who may be situated as the author has been to guide them, in their inquiries or practice, he will deem the obtrusion of these thoughts to be justified, and is willing that the degree in which this aim is accomplished should be held to be the test of their merit or demerit.

To the Editors of the Medical and Physical Journal.

Gentlemen,

As progressive improvement can only be generally beneficial by public declaration and faithful reduction to practice, if the following observations and practical statement deserve public attention, you will decide accordingly.

By

By the individual and collective endeavours of chirurgeons, improvements have fortunately and progressively augmented the melioration of manual curative intention, and happily diminished the previously unavailing and indeterminate application of instruments. These generally applicable observations being premised, I transmit you my attentions to, and successful treatment of an instance of oscheocele.

It occurred in a lad, seventeen or eighteen, of radically imbecile systematic composition and conformation, but generally enjoying tolerable health, excepting occasional transitory inconvenience from hernia congenita scrotalis, which had frequently appeared from earliest infancy, but was hitherto readily reducible by his efforts, especially when horizontally reclined, &c. The strangulation of the prolapsed contents occurred about the 18th or 19th of June, 1799. Upon the 20th I was desired to visit him, after several fruitless endeavours were employed for its reduction, &c. The afflicting and designating symptoms were principally the following: general distressing uneasiness, pulse varying betwixt 100 and 120, tolerably regular, somewhat sharply impressing the finger; breathing anxious and frequent; visage narrow, contracted and rather squalid; eyes expressive of sorrowful conceptions, depressed in the cavities; he was distressed with continual pervigilium, restlessness, and frequent propensity to change his position; violent abdominal pains with successive frequent hiccup; likewise anorexia, nausea and vomiting; which last generally produced bilious matter, mucous gastric excretion, and the liquids swallowed, and an insatiate desire for drinking, &c. The *prolapsus hernialis* resembled a globular figure, (capable of holding 12 oz. of liquid) tensely elastic, painful, slightly inflamed, and possessed an obscure degree of transparency; suppression of intestinal depletion likewise occurred, but urinary secretion was sufficiently evacuated. An endeavour by manual application was ineffectually attempted for the reduction of the hernial contents. In gradual succession, all the ordinary medicinal and remedial expedients customarily employed in similar disorders were assiduously administered, astringent frigerating epithemata of diversified composition and application, especially solutions of acetis plumbi, ammonia muriata, spiritus vinosus gallicus aqua et acetum, in equal portions, &c.; the tumour was regularly surrounded with pieces of linen moistened in the specified liquid, but apparently without discernible advantage. The buttocks were preserved in an elevated position to favour the ingress of the

the hernial protrusion, venesection to produce deliquium, the patient being placed in an erected posture during the operation, but without the intended consequence, although a considerable depletion was procured at each repetition. Frequently repeated attempts were fruitlessly employed at intervals, to return the protruded contents. Purgative compositions were exhibited internally without apparent advantage; stimulating injections; likewise one composed of infusion of nicotiana (ʒi. to ℥xij. of water) not possessing the apparatus for preparing and injecting the clysma fumosum, was exhibited, but seemingly produced no perceptible advantage, apparently increasing the nausea and the abdominal uneasiness. Immersion in the balneum tepidum was employed, and thereafter unsuccessful endeavours for the reduction. Anodyne preparations were administered to procure composure, relieve pain, and produce general relaxation; which appeared to conduce to temporary alleviation of pain.

Grievously disappointed in all former endeavours, I again repeated the old fashioned, but frequently beneficial method of inverting the patient over the shoulders of an assistant; and when suspended in that situation, the head and shoulders being supported by his father, I made another unavailing experiment for reduction; fortunately at that moment, when expectations and remedial employ, save the operation, were considered inadequate, an imaginary conception suggested the probable advantage that might be obtained from giving the body a sudden elevation and depression; I therefore directed the assistant, (a stout firm man) supporting the extremities, to spring forcibly from the floor, and descend with a bounding exertion, (hic mihi equidem vix sunt verba idonea) while the assistant, supporting the shoulders, &c. retained the patient as much as possible in a proper direction for relaxing the abdominal muscles; during which evolutions I retained manual pressure upon the tumour; when, after repeated gradually and cautiously increased movements of the assistant, we obtained the pleasing satisfaction of observing the hernial extrusion speedily subside, and ultimately disappear. Immediately he experienced material and welcome relief from the most distressing symptoms. The oscheocele had been of five or six days duration; a violent diarrhœa succeeded, and in the course of twenty-four hours had about thirty intestinal discharges, originating from the carthartic medicaments and enemata which were employed. He quickly recovered, and by the applications of a proper elastic bandage, no further de-

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scent occurred during his residence here. He went to the West Indies in the ensuing autumn, and, by information, I understood he continued free from his complaint.

Newtown Stewart, Galway, ANDREW SIMPSON, Surgeon.
April 2, 1805.

To the Editors of the Medical and Physical Journal.

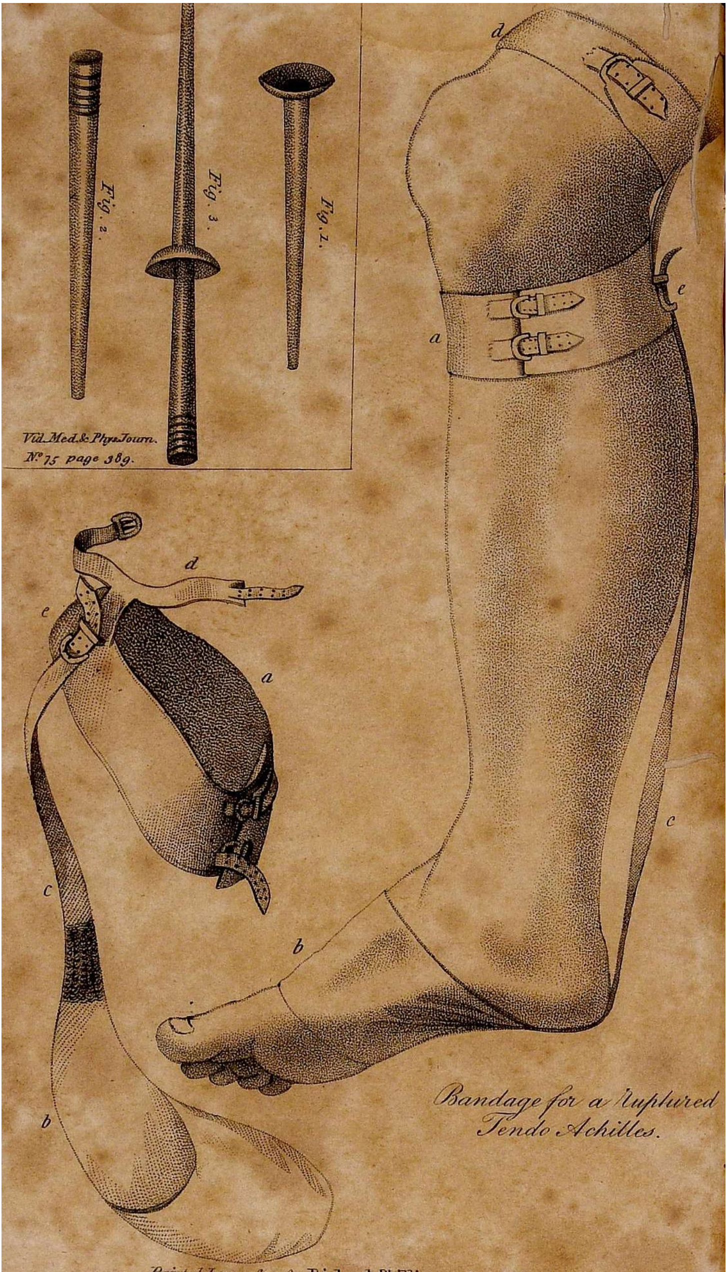
GENTLEMEN,

I DO not know of any branch in surgery, where there is more room for real and useful improvement, than in the article of bandages. Many unpleasant accidents are daily occurring, which might, if not really cured, be much relieved, and made comparatively comfortable to the patients labouring under them, if more attention was paid to this branch of the profession. I own much has been done of late; but I am certain much still remains to be done. I have, for several years back, had an idea of a bandage for that unpleasant accident the *rupture* of the tendo achillis; but not wishing to intrude myself upon the public before I had realized its utility, I have not sent it to you sooner.

In country practice, such as mine is, accidents are not wanting; the particular one in question I have before met with more than once, and used the best methods that I had been taught or read of; but the cure was by no means satisfactory, either to my patients or myself; and I know of several cases, which were under the care of eminent surgeons, where the patients, from the shortening and contraction of the muscle, were under the necessity of wearing a high-heeled shoe, or to walk entirely on the toe.

My idea was to form, if I may be allowed the expression, an artificial muscle and tendon, which, at the same time that it assisted the patient in walking, kept the ruptured ends of the tendon in as close contact as possible, which must facilitate their union, the great contraction of the muscles, which always takes place, being overcome by the action of the springs. I herewith send you a drawing of the bandage as applied, and the same in profile, which I hope to explain by the references below. I shall just give a short account of the case alluded to.

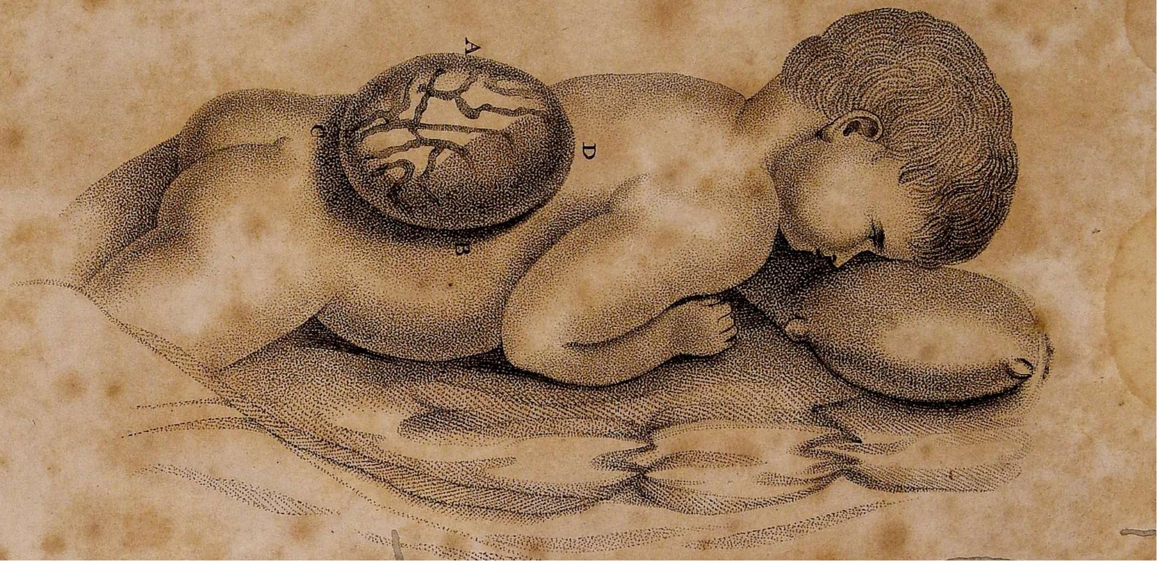
— P. Esq. a gentleman of large fortune and consequence in this neighbourhood, in walking in his park after a shower of rain, the ground being soft and clayey, the sward shot from



Bandage for a Ruptured Tendo Achilles.

Printed June 1 1805, for Richard Phillips, 6 New Bridge Street.

CASE of SPINA BIFIDA by Mr HOWARD of HULL.



from under his feet, and he was thrown down; with the assistance of his servants he was got into the house. On being sent for, I soon found that the tendo achillis was torn through. As considerable spasms in the muscles came on, I ordered an embrocation with lin. saponis, tinct. opii, &c. and rest. As soon as the inflammatory symptoms abated, I sent for Mr. Wm. Morrison, bandage and truss maker, and a most ingenious mechanic, and directed him to make the bandage of which I enclose a drawing. Its success is indubitable. My patient wore it about nine months, and can now use his leg as well as ever. He is sixty-nine years of age. After the first week he could walk with tolerable ease, and subsequently with little difficulty.

By the public papers, I find accidents of the kind have been rather unusually frequent. I own this has been an additional stimulus to me to send the drawing. I had meant it to be in time for the last month, but my engagements prevented it. I hope the explanation of the drawing will be sufficiently clear. If it is not, I shall be very ready to give any farther explanation. I am, &c.

J. WAIBLINGER,
Member of the Royal College
of Surgeons in London.

Fulneck, near Leeds, April 12, 1805.

EXPLANATION OF THE DRAWING.

No. 1. Bandage as applied.

a. A strap $2\frac{1}{2}$ inches broad, to go round the leg, below the knee, fastened with two buckles.

b. A shoe of ticken, which draws tight at the tarsus. N. B. A whole shoe cannot be borne, as the spring strap draws the shoe so much, that it causes great pain in the toes.

c. A strong strap, fastened to the shoe *b.* 14 inches in length, and contains five spiral springs of brass wire, about the thickness of a quill barrel each; when inactive, the springs are about $3\frac{3}{4}$ inches long. This strap is fastened to *a.* by buckle at *e.* and may be made to act at pleasure, by tightening or slackening it.

d. A strap, $1\frac{1}{2}$ inch broad, buckled above the knee, is fastened by a small back strap to *a.* This back strap contains also several small spiral springs. Its chief use is, to take off some of the pressure upon the gastrocnemic muscles, which would else be troublesome.

P.S. I had prepared some observations on Vaccination, but as the benefits of the vaccine infection are so notorious, I forbear troubling you with them, being convinced it must find its due estimation in spite of all opposition. I have within the last four years inoculated about 1200, and have every reason to be satisfied with it.

CASE

Case of Spina Bifida, *communicated by Mr.* Joseph Howard, *Member of the Royal College of Surgeons.*

THE term spina bifida is generally confined to certain tumours appearing in the course of the spine. In the case in question, the tumour was situated on the lumbar vertebræ, but had not the usual characteristics, not yielding to pressure, but remaining firm. This induced me to make use of a ligature for its extirpation. After the ligature had been applied eight days, the child was seized with convulsions and died.

In order to determine whether there was a deficiency of bone, or a separation of the spinous processes of the vertebræ, I exposed such of the latter as were in the neighbourhood of the tumour. There did not, however, appear the least deficiency or separation; but a small canal or tube was found, proceeding from the vertebræ to the tumour, but not communicating with the former internally. From the length of time which the ligature had been applied, I am inclined to believe that the child's dissolution was not in consequence of the disease, or the operation; for the tumour was nearly separated, and the parts exhibited no unfavourable appearance.

Appearances of the Tumour, prior to the Application of the Ligature.

It appeared to possess much irritability; neither could that transparency be observed, which is generally the case, through the tumour; it appeared very vascular, and the ramifications of blood-vessels, upon the upper portion of it, was very beautiful. It did not appear that the diameter of the tumour increased after birth. It is worthy of remark, that one side of it was of a dark ash colour, and no blood-vessels were discoverable thereon. I have sent you an exact drawing of the tumour.

EXPLANATION OF THE DRAWING.

A to B the breadth of the tumour across the loins, which was 2 inches $\frac{7}{16}$; C to D the length, being 1 inch $\frac{7}{8}$; the height 2 inches $\frac{1}{16}$.

Hull, April 8, 1805.

Observations on the Use of a Solution of Sal Ammoniac in Vinegar, as an Application in various Chirurgical Cases. By G. Wilkinson, *Licentiate of the Royal College of Surgeons, &c. &c.*

AFTER what has been said long ago by the celebrated Mr. Pott,* Mr. Bromfield,† Justamond,‡ Bell,§ and others, but particularly Mr. Henry Yates Carter,‖ respecting this remedy; it may, perhaps, be deemed not only a superfluous, but an unnecessary task, to say more on this subject; more particularly, as it already appears to be so well known and fully understood.

Admitting, however, the full force of these objections generally, it does not appear, that the inquiry we are about to make respecting this useful application is exhausted; and the more so, as it seems not to have been noticed in any separate treatise with the distinction to which it seems entitled, if we except what has been related of its wonderful effects in lacerated wounds, by Mr. Carter, which, from my own experience I can say, he has not exaggerated.

If it has not been deemed unimportant, or uninteresting to enter into disquisitions on the effects of cold water,¶ warm and cold bathing,** riding on horseback,†† sea voyages,‡‡ use of the dumb bells, swinging,§§ friction,‖‖ electricity,¶¶ and various other apparently simple operations that have been found eminently beneficial to mankind; this attempt of mine to extend the use of this remedy more generally than heretofore, may, perhaps, prove not altogether useless.

Thirty years ago, or thereabouts, (and perhaps too much so, even now) it was generally the practice, in almost

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* See his Chirurgical Works.
† Observations and Cases in Surgery, vol. 2.
‡ On Cancerous and Schirrhus Disorders.
§ System of Surgery and Treatise on Ulcers.
‖ Med. Facts and Observations, vol. 2, p. 14; vol. 6, p. 66.
¶ Vide Dr. Currie's Reports.
** Sir J. Floyer Baynard, Dr. Russel, &c.
†† Dr. Sydenham's Works.
‡‡ Dr. Gilchrist.
§§ Dr. Carmichael Smyth
‖‖ Hippocrates, Boerhaave's Medical Correspondence, &c.
¶¶ Priestly, Cavallo, Birch, Lowndes, &c. &c.

every accident, whether of simple or compound fractures, dislocations, sprains, bruises, lacerated wounds, and even in common cuts, or incised wounds, to apply warm emollient poultices: nay, scarcely was any operation in private practice, or public hospitals performed, were they ever so important or trifling, but these were (and still are, by many) the first applications used; and it also was the practice in many other cases of surgery, as erysipelas, inflammations of the eyes, kibes, chilblains, tetters, ringworms, and even in some other cuticular eruptions.

Mons. Goulard, about this period, having written his valuable dissertation on lead,* and, besides demonstrating its surprising effects as a sedative, clearly pointed out the bad consequences of emollient applications in general; and moreover, having strongly urged the absolute necessity of applying his remedy, whether in lotion or cataplasm, (except in some particular cases, as contractions of the joints, indolent tumours, &c.) for the most part cold, excited the inquiry of medical practitioners so far as to adopt his plan, which, by experience, they found far preferable to that which had been heretofore practised.

Hence the diluted *aq. litharg. acetat.* became a favourite remedy, and was very generally adopted.†

In many instances, however, when used indiscriminately, it proved of no essential service, while in *very few* others the absorption of the metallic particles of the lead proved hurtful; yet, by its superseding in a great measure the pernicious use of warm poultices, stimulating and emollient fomentations, &c. the treatment of many parts of the chirurgical art was much improved, and more safe and less tedious cures, in very many instances, were effected.

It is, I think, almost needless to observe, that in most accidents where much violence ensues, as fractures, dislocations, sprains, bruises, lacerated wounds, &c. inflammation and vehement pain, if they do not immediately take place, follow sooner or later, according to the degree of injury inflicted; and when this is the case, symptomatic fever, more or less, is the consequence.

To prevent this evil is as much the province of surgery, and

* See his Treatise on Lead, 1770.

† This was greatly owing to the recommendation of Mr. Benj. Bell, whose experience and judicious remarks on its use, strongly pointed out its merits. See his Treatise on Ulcers, &c.

and perhaps more than medicine: the disease inflicted here is local; hence it follows, that local applications are obviously the primary object; and as we are now become better acquainted with the laws of the animal economy, a more rational treatment has in general been adopted; the use of warm relaxing poultices and fomentations, at least in the first instances of these injuries much lessened; except indeed in some cases, where it still prevails to my certain knowledge, not only in private practice, but even in some public hospitals.

If this injudicious custom continues through the effect of ignorance, it is much to be lamented; but if persisted in through the force of habit, it is with the sole view of pointing out the disadvantages attendant on this treatment, that I have been induced to offer these remarks.

Taking it for granted in a general way, that the use of emollient cataplasms and warm fomentations to recent injuries are pretty generally laid aside, and that the use of the diluted *aq. litharg. acetat.* is found more beneficial, particularly in cases where the parts are not wounded, which in these instances are usually of a less dangerous nature; yet, as there is some risque of mischief from the absorption of the metallic particles of the lead where there is a wound, many practitioners have been on this account induced to lay aside saturnine applications: now, while some prefer vinegar alone, or mixed with water, others have thought it better to add to it the crude sal. ammon. and that this is certainly preferable to the *aq. saturn.* or vinegar alone, or mixed with water, myself, as well as many others, will admit.

This medicine is penetrating, discutient, and less stimulating than the *spt. vin. camph. linim. sapon, &c.* it diminishes inflammation more rapidly, eases pain, and is by far a less expensive remedy: hence it is to be preferred, not only as being more certain, but because it is more simple, and perhaps less liable to do injury. Crude *sal. ammon.* dissolved in vinegar, provided it is not too much saturated with the former, appears to act as a sedative, and is devoid of any strong stimulus, except when applied to parts in a very irritable or inflamed state, or, as I before observed, too strongly saturated with the salt.

I pretend not to enter into any disquisition or inquiry into the chemical properties of this application, or to account for its action on the parts to which it is applied in an experimental way by torturing brute animals; which,

 however

however useful they may appear to ascertain some doubtful points in physiology, could by no means have produced any thing satisfactory for this purpose: but, as I found a Mons. Paul, mentioned by Goulard in his treatise,* has by experiments made on the coagulating lymph of the blood, found that *solutio sal. ammon.* more readily dissolved it than the *ext. saturn, sal. nitri,* or *aq. calcis,* I repeated them on the coagulum of blood and albumen ovi, and found that this solution acted more powerfully, by rendering both of them more soft and tender than the abovementioned substances; the sal nitri was used in a state of solution in vinegar of the same strength as the sal ammon. and neither the extr. saturni nor aq. calcis was diluted. Now, although I do not say that from experiments instituted on dead matter, we are to draw conclusions analogous to what may take place in the living body; yet it would appear from hence, that the sal ammon. solution has no tendency to coagulate, but rather to dissolve gelatinous fluids, not from these experiments alone, but particularly from its general effects as an application to parts containing extravasated fluids; such as ecchymosis, bruises, sprains, fractures both simple and compound, and in some cases of white swellings in the joints proceeding from violence that are not already in a state of suppuration, or where contractions of the tendons and muscles have not taken place, forming a sort of stiffness, or in a diseased state of the articular cartilages; in these last some other mode of treatment must be adopted, which it is not my business here to relate.

The wonderful and sudden effects of cold water pumped or poured at a distance on *recent* sprains, bruises, and even fractures, by its diminishing tumefaction, easing pain, and suppressing inflammation, must be known and witnessed by some practitioners; and few who have been in the habit of applying it in such cases, cloths dipped in the diluted *aq. litharg. acet.* quite cold, and frequently repeated, must have, though in a lesser degree, experienced similar effects. But then it must be recollected, that although the inflammation and pain will in may instances go off, yet a hardness or stiffness, and sometimes numbness remains, the removal of which requires a different treatment: a warm poultice may, and is sometimes used; but

* See Goulard's Treatise, p. 182 and 197.

but most assuredly for reasons already and hereafter to be mentioned, is none of the best applications.

The acetated *solutio sal ammon. crud.* will, however, generally answer these purposes (if not better than the affusion of cold water, which last must be applied instantaneously after the reception of the injury) at least preferable to the diluted *aq. litharg. acet.* and if applied at first the better; though even long afterwards, when inflammation is formed, it appears superior to any, or perhaps all other modes of treatment; and if repeatedly and constantly persevered in for a time, the pain, tumefaction, and inflammation not only go off quickly, but the hardness, stiffness, or numbness will be prevented, the extravasated fluid completely absorbed, and, if no destruction or derangement of the organization of parts has ensued from the accident, suppuration will be prevented, and a complete cure effected by the first intention; the truth of all this I have repeatedly and constantly experienced for some years; so that to narrate a series of cases would only be relating what I think requires no great faith to believe, as being already demonstrated.

But, as a striking instance lately came under my observation, in which the stages of the effects of the different applications I have referred to were particularly exemplified, I shall relate it, in the order in which it began and terminated.

A healthy man, thirty years of age, received a blow in the direction of the ulna of the left arm; pain, tumefaction, and some degree of inflammation took place. A medical practitioner advised a warm poultice, which he used for four or five days; the pain being increased and tumefaction enlarged, he was afterwards recommended to consult me, by a man who had suffered most grievously from the effects of warm poultices, recommended to him by the same gentleman. I found an extravasation which occupied two-thirds of the length of the bone, with which it appeared to be in contact, and this extended to the olecranon. I immediately reversed the treatment, by causing him to apply constantly and repeatedly, the diluted *aq. litharg. acetat.* in the form of a poultice made with white bread, and applied quite cold; this was used for several days: the pain very soon abated, the inflammation seemed quite gone, but a stiffness of the parts remained, together with a visible and palpable collection of fluid in contact with the olecranon, near its articulation with the os brachii. Anxious to prevent suppuration, I thought

 of

of the acetated *solutio sal ammon.* which was used, and the next day he was visibly better; the swelling being diminished, he continued it for a week or ten days, at the end of which time the extravasation was completely absorbed.

The great number of applications usually recommended on these occasions, such as linim. sapon, alias opodeldoc; spt. vin. camph. lin. volatile, Riga balsam,* bals. sulph. terebinth. or what is the same, Haerlem oil, otherwise named cripple oil; British oil,† ol. terebinth. essence of mustard,‡ and various other equally stimulating or relaxing remedies, among which may be included warm poultices and fomentations; are so contradictory in their nature, and widely different in their operation and effects, that it appears very doubtful whether this subject is clearly understood. A careful attention, however, to their obvious action or effects on the parts, or accidents to which they are applied, so far as I have been able to ascertain this by observation, is what I shall attempt to relate; and by leaving it to the reflection of others, whose experience may enable them to judge rightly, we may, I think, be led to discriminate more accurately concerning their respective merits.

The principal design of the surgeon being, in all recent accidents, to moderate pain, retard inflammation, and, if possible, promote absorption; whereby union, by the first intention, is speedily effected, cannot well be accomplished by any of those means which strongly tend to stimulate the parts to increased action; and that this is not liable to be produced by the applications just now mentioned, will appear obvious to those who have carefully attended to their effects.

That

* This remedy, which is imported from Riga, appears to be common rectified spirits; it is of a light greenish colour, and slightly bitter taste: its great reputation and demand among the common people, has caused it to be imitated in this country, which is effected by tinging rectified spirits with the juice of walnut leaves.

† Balsam of sulphur is composed of the latter ingredient, dissolved by heat in the essential oil of turpentine. The Haerlem oil, which was formerly imported from Holland, and that under the name of British oil, is, in fact, the very same.

‡ A name very artfully applied to what evidently appears to be a composition of essential oil of turpentine, in which camphor is dissolved, and slightly tinged with linseed oil. Essence, or oil of mustard, is totally void of the pungency or stimulus of the seed. It seems, however, an useful remedy in old sprains, chronic rheumatic pains, and slight paralytic affections, &c.

That this is also the practice of many not versed in the laws of the animal economy, and ignorant of the *modus operandi*, as well as properties of the applications they are using, is a fact that cannot be controverted; as by these means they mechanically, as it were, apply in the first stage of the accident, that which should have been used in the middle, or latter end.

The general manner in which such remedies as the aqua saturn. acetated solution of crude sal ammon. and spt. Mindereri, seems to have been, in surgical cases, recommended by Messrs. Pott, Bromfield, &c. has led me, and no doubt others, to suppose any of them might prove equally successful, and that not only in contusions, sprains, fractures, &c. but other cases that might require the same kind of treatment. This, which I believe may be found true in general practice, has notwithstanding induced me to wish to distinguish the solution of the crude sal ammon. from other applications, for which I shall beg leave not only to point out my reasons, but endeavour, as far as I am able, to ascertain from facts and experience, the different cases and situations in which these applications, as well as others that are recommended, ought, or ought not, to be applied; noticing, at the same time, the degree of strength of the solution, according to the nature of the cases.

Now, as some are averse to saturnine applications, where there is danger from absorption, their use may be omitted in all solutions of continuity; as in fractures, dislocations, contusions, &c. accompanied with laceration, and indeed in wounds or ulcers of any sort. But in all those proceeding from accidents, whether incised or lacerated, and also in accidents where no solution of continuity takes place, the sal ammon. solution applied particularly on the first onset, will prove beyond doubt a most admirable remedy. No one, however, whom I know, has ventured to apply it so generally, and in the form of a dressing, if we except the ingenious Mr. Henry Yates Carter,* surgeon, at Kettly in Shropshire. The proofs he has adduced in its favour by the recital of several desperate and even hopeless cases of contusion, bruises and fractures, accompanied with extensive lacerations, &c. induced me to give it many fair trials in similar cases; and in every instance in which it was applied, the pain, where the wound was considerable,

* Vide Medical Facts and Observations, vol. 2 and 6.

proved somewhat violent, yet this never continued for more than a few minutes.

So very opposite are the effects of this treatment in the cases we have named to that of warm poultices, fomentations, and even the diluted *aq. litharg. acetat.* that instead of tumefaction and pain arising, which most generally occur in a greater or lesser degree from the consequent inflammation, I found the swelling which had taken place in the time prior to its use, entirely subsided by the next day; and in cases where the integuments had not been much bruised, and their structure or organization not destroyed, they very shortly after were frequently united by the first intention; while in those that had been greatly injured, scarcely less time than three, or at most four days elapsed till a mild suppuration would come on; which, to my great surprise, was usually less time than I had hitherto observed to take place on former occasions under a different treatment.

In a case which occurred to me in a seamen, named Alexander Ross, 33 years of age, the effects of this application were astonishing: his arm, just below the insertion of the deltoid, and across the belly of the *biceps, brachæus internus,* and *triceps* muscles, was squeezed between the ship's side and anchor stock; the bruise was such, that it appeared nipped close to the bone; a considerable tumefaction, with ecchymosis, immediately took place, and some discharge of blood from a small wound on the interior part of the arm, in the *biceps* muscle, afterwards followed. Fearful that the *arteria brachialis circumflexa,* or some other collateral branches, might have been so much injured as to render necessary an operation, I was somewhat alarmed, though I immediately provided for that purpose. But, by plentiful venæsection from the arm on the opposite side, and the constant and repeated application of compresses dipped in the acetated *solutio sal ammon.* I had the superlative pleasure of perceiving the tumour subside gradually, and that rapidly for the first 24 hours. A constant discharge of fluid, tinged with blood, continued to proceed from the wound for the first two or three days; this afterwards became of a lighter colour, at length yellowish and transparent. It continued to ooze in this manner for about fifteen days, when the arm appeared to be nearly reduced to its natural size, but was much smaller on the part nipped. The cure was effected in about four or five weeks, except a very small discharge of pus from the wound, which was nearly closed.

It

It was no small pleasure to perceive, that no suppuration or any tendency to this termination took place; and this circumstance surprised me the more, as I expected the great injury which the muscles and exterior covering seemed to suffer, would most probably terminate in this process.

I do not say that suppuration would have occurred had warm emollient cataplasms been used; but I must aver, that this treatment would not only have promoted it, but at any rate rendered the cure more tedious.

If I may be permitted to hazard my conjectures on this case, I would say, that the solvent, or, if you please, penetrating and discutient property of this application, assisted the absorbents so effectually, as enabled them very speedily to convey back into the vascular system the coagulable lymph and red particles of the blood extravasated; for very little pure blood was discharged, except on the first reception of the accident. No symptomatic fever took place in any considerable degree; his pulse was somewhat more quick than usual, and such a degree of pain ensued for four or five days, as required an anodyne at bed-time. Throughout the whole process of his cure, no other application was used but the solution, except at last a little sticking plaster to cover the small wound, after it had ceased discharging ought else than a very trifling quantity of purulent matter.

A most distressing accident took place in the month of August, 1800; John Goodwin, a sailor lad, sixteen years of age, had the middle and inner part of his right thigh bruised between the ship's side and sharp edge of the anchor. The external integuments, *vastus internus*, and part of the *Sartorius* muscles were partially divided; the wound was more than four inches in length across, and about one inch and half wide; a considerable hæmorrhage ensued from this wound; immediately below the articulation of the joints of the inner ankle, where it unites with the astragalus and bones of the tarsus, the integuments and muscles were torn downwards, the tendo Achillis was visible, although the bones were not bare, nor their articulating ligaments, or blood vessels supplying the foot divided.

Some sutures were applied to both wounds, so as to retain their integuments as near in contact as could be without being tight; slips of adhesive plaster were also applied with lint, and compresses moistened with sal ammon. solution, and these retained by light bandages; the whole of

of this covering was kept constantly moist with the solution, and anodynes were given occasionally. At the end of three or four days, when inflammation had come on, which in this case was not *inconsiderable,* though unattended with much *tumefaction,* I clipped off the stitches; the integuments had assumed a gangrenous appearance, yet a very laudable and well concocted pus appeared.

From this period to the 15th or 16th day after the accident, every thing seemed promising; the discharge was favourable, and granulations had taken place in the thigh, which began to heal; the same process had commenced in the wound of the ankle after the integuments had sloughed off; and, notwithstanding all these flattering appearances, strong spasms, with considerable rigidity of the muscles of the neck, face, chest, &c. took place; his jaw at length became locked, and the muscles of the thigh, leg and foot alternately were convulsed. Wine, brandy, and bark, the second a little diluted, were given freely; mercurial ointment was rubbed into his thighs and legs; calomel was also given, and opium freely administered; the dressings were now of digestive, and pledgets ex ol. terebinth, with a view to excite a greater inflammation and discharge, were applied, though this last was not much lessened when the spasms came on; notwithstanding all these means, and a ptyalism had come on, he died on the twenty-seventh day from the accident, and eleventh or twelfth from the attack of the locked jaw.* The wound of the

* From the fatal termination of this case, it may be suspected by some, that the solution applied here having a tendency to counteract the inflammation, accelerated the attack of the spasms; but how far this may be true it is not easy to determine. That tetanus more frequently occurs in lacerated wounds of the hands, feet, fingers, toes, &c. whether from fire arms, or other accidents; and this is perhaps the more likely where tendons, or rather nerves, are pretty much diffused, is very well known, and has always been remarked; and, for aught we know, has occurred under every form of external or even internal treatment. In the cases related by Mr. Carter, (Vide Medical Facts and Observations, vol. 6, p. 66,) nearly the whole of them were of the worst sort, and I think full as bad, if not worse, than this I have related. Nothing of this kind however took place, nor do I think we need be deterred from its use in similar cases. I should have observed, that from the third or fourth day, this patient was never free from symptomatic fever; and as every thing was used that might tend to keep up the vigour and energy of the system, as well as to excite the external parts to action from the very first appearance of the spasms, and his diet was never low or sparing, it will plainly appear, that I did not neglect to put in practice the plan of Dr. Rush, which has been said to have proved ingeneral more particularly successful than others.

the thigh was nearly healed; that of the ankle had begun to fill up near the astragalus and tarsus, but the part about the tendo Achilles appeared uncovered, and retained some matter in contact with it and the os calcis. As the articulation of the joint was sound, the tendo Achillis entire, and a free circulation between the leg and foot preserved, amputation could not have been justified from reasoning *a priori*; and to have performed it after the commencement of the spasms, would most probably have proved unsuccessful.

To many contused, lacerated, and even incised wounds, in different parts of the body, I have applied this solution, both as a lotion and dressing, on the head, face, limbs, &c. and that with superior success to any other application I had hitherto used. Prior, however, to the perusal of Mr. Carter's paper, I had never applied it where there was a wound, but confined it only to contusions, sprains, simple fractures, &c.; and although I have (except in some very particular cases) disused warm poultices, contenting myself with the diluted *aq. litharg. acetat.* as a lotion, and sometimes in form of a cold poultice, yet in this last form I have, except in some particular cases of inflamed tumefied breasts, proceeding from engorged milk, &c. scarcely used it at all.

Mr. Carter's solution, as a common dressing to lacerated wounds, is two drachms of crude sal ammoniac to half a pint of vinegar; this is an active and, I think, pretty strong application. I have, however, been under the necessity of sometimes diluting it with water; as, in cases where the wounds become tender after suppuration, and where they are bare from the separation of their sloughs, it is usual for me to add to it an eighth or tenth part of camphorated spirits more particularly as a dressing to the wounds, and that not only with a view of warming and invigorating the parts, but correcting the fætor usually attendant on their suppuration. The formula of the prescription runs thus: ℞. Sal ammon. crud. ʒij. aq. pura. ℥ij. acetum. com.* ℥ij. spt. vin. camph. ʒiij. m. ft. lotio pro usu. As in some cases, the lint wet with this composition, on drying, frequently

* Much, however, depends on the purity and strength of the vinegar used; for should it unfortunately happen to be mixed or adulterated with any of the mineral acids, to which it is liable when flat, its effects on wounds will not only be pernicious, but the pain and inflammation excited extremely dangerous.

quently sticks to the wounds and creates uneasiness, more especially when the discharge lessens, I have in these instances applied pledgets of lint, or tow, spread with cerate, above the dressings.

I shall now proceed to point out what relates to its use where there is no wound, and those cases where it may not be used, or where it may prove hurtful. In sprains, bruises, fractures, dislocations, and other recent injuries, its usefulness is already acknowledged. In these cases, however, it is preferable to the aq. saturn. spt. Mindereri, linim. sapon, and spt. vin. camph. For, although the first will diminish pain and swelling, it yet leaves a hardness; the second is less active, and, as well as the third and fourth, more expensive; and as the two last are not only more stimulating, whereby as primary applications they become improper, but from their active properties seem more likely to excite than diminish the inflammation already present, which the solution is calculated to suppress; hence they would appear more useful after diminution of the inflammatory symptoms; and when these are quite gone and the parts become debilitated, their tone and vigor may be more powerfully excited by the use of the volatile liniment with ol. terebinth, ol. terebinth c. camph. or bals. sulph. terebinth. The solution should be discontinued when the pain, inflammation and swelling are gone off, as its farther use appears no longer necessary.

By this regular mode of treatment, violent sprains, contusions and dislocations, have been very readily cured; which, in the very irregular and unskilful method of practice, by emollient poultices and other inconsistent applications, have continued not only long in hand, but frequently remained incurable.

It does not appear, as far as my experience extends, that this solution has proved useful in scrophulous affections, or white swellings of the knee or other joints, from the same cause, except some particular cases where there is great uneasiness from external violence, or pains in the parts proceeding from acute rheumatic or arthritic affections. In these last, although it has greatly lessened pain by diminishing the temperature of heat in the parts; yet the benefit derived from it here has not been permanent, and the sudden removal of the pain in one instance where a *metastasis* took place from its affecting the stomach, had very nearly proved fatal.

In sciatica or hip gout, and other cases of chronic rheumatism,

matism, I have not known it produce any good effect, nor can it be expected to be useful or beneficial in œdematous swellings, paralysis, contractions of the tendons, muscles, or anchylosis.

In four cases of strangulated hernia, one of which was a female, I found this solution applied liberally (by wetting compresses of linen and applying it as cold as possible, constantly repeating the same till they became warm or dry) to succeed so effectually as lessened their bulk, whereby a reduction was effected. In two of these cases warm fomentations had been previously used, which, as is usually the case, aggravated the pain, and increased the size of the tumour.

In these last cases the solution was used in the proportion of half an ounce of sal ammon. crude to a pint of vinegar, mixed with an equal quantity of water.

These facts of its effects in such like cases are by no means unknown; as this or similar applications have been recommended by the late Mr. Pott and others. Ice has also been recommended, and used with success.

It has also by some surgeons been highly extolled in certain cases of incipient hydrocele; I think by Mr. Keate, who has, as I have been informed, asserted that it has performed radical cures. That this may be true is possible; but although I have given it trials in about four cases, two of which were only just forming, and pushed its use with vigour, applying it made pretty strong for above five or six weeks, and have also known it used in similar cases by others, yet I never knew it produce a radical cure. It has certainly diminished the volume or size of the tumour to less than half its bulk, but on leaving off, the application it always returned.

In the *cynanche parotidea,* or mumps, a certain epidemical distemper which sometimes affects one or more *testes* with inflammation, pain, and tumefaction, strongly resembling *hernia humoralis,* for which it has been mistaken, I have tried this solution with no small success as an application in several instances, of suddenly producing a repulsion, in the following reduced state, viz. ℞. Sal ammon. crud. ʒß. acet. ℥i. aq. pura ℥vij. spt. vin. camph. ʒi. ft. lotio. This was applied in a tepid state, and repeated frequently, by wetting in it compresses of thin linen rags.

When accidental bruises or sprains have occurred to produce tumefaction in either of the *testes,* I have used this solution in the form just prescribed with considerable advantage,

advantage, although it has been deemed necessary in some instances to apply leeches. The *aq. saturnini* has also done good here; but on account of the hardness of the parts resulting from its use, this last remedy by me is justly preferred.

There is a certain species of head-ach which I have sometimes met with, not from a carious tooth or teeth, but where considerable external heat of the forehead, throbbing of the temporal arteries, and a painful sensation of the eyes and their coverings, have prevailed. This pain is often very extreme, and not unfrequently affects the system by increasing the frequency of the pulse. I do not mean a spasmodic or nervous affection of the head, or painful sensation of the face, &c. described by the late Dr. Fothergill. I say, in the first mentioned complaints, I have found this solution in the first prescribed form, sometimes diluted with one third part water, and at others, even in Mr. Carter's method, with the addition of some camphorated spirits, give great relief. I mean not that this solution is to be considered as capable of curing head-achs: these are often *idiopathic* diseases; but I consider the great relief that is frequently produced by applications of different kinds when this part is dreadfully pained, and which the patients call aloud for, as useful. To determine precisely the nature and cause of these affections is extremely difficult; and when we even succeed in procuring relief, or curing the disease, it is as often effected by random as by a *real* discernment; the feelings of the patient will always be the best guide; and where stimulating remedies are found to do no good, but harm, those of an opposite quality, such as the solution we have described, and varied in strength according to circumstances, will often prove of considerable benefit.

In some cases of delirium from fever, and in violent head-achs from drunkenness, where I have formerly prescribed vinegar, I have, however, found the solution much more powerful; and in ecchymosis, or lividnes of the eyelids from blows, &c. of all remedies I ever knew tried, this has the soonest taken off the blackness.

Many opportunities have occurred in which I have used with singular success this solution in *hernia humoralis*, but this was in the mild form, as recommended in the mumps. In full habits, strongly marked with symptomatic fever, general venesection *ad deliquiem animi* has always appeared to me the most decisive, prompt, effectual, and even safe remedy; but in those cases where the inflammation was local,

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I have contented myself with applying leeches. These means, varied according to circumstances, with the occasional use of any mild laxatives, and opium where violent pain urges, given in clysters; which last method has frequently succeeded in preference to its exhibition in the usual form, not forgetting the horizontal posture, with the lotion already noticed, which I can affirm is superior to emollient poultices or *aq. saturn.* the general internal treatment being left to the discretion of the practitioner. It is necessary to remark, that when the pain goes off, and the swelling continues long and subsides slowly, *i. e.* when the inflammation is quite gone, stimulating it with the application of volatile liniment cum camph. very speedily reduces it to its natural size.

Phymosis and paraphymosis proceed not always from one and the same cause; the first, which in some persons is perfectly natural, is never considered of any consequence, unless the *preputium* or *glans* are in a diseased state, and which scarcely occurs but from venereal infection: the second, which is sometimes from the same cause, is however as frequently produced from the tightness of the *preputium*, when pressed over the *glans* by mere accident. The phymosis happening more frequently to come under our observation, and requiring such applications as tend to diminish inflammation and tumefaction, various have been the remedies proposed and used to effect this purpose. To enter into an inquiry respecting the different varieties and stages of this very troublesome and even dangerous complaint, would be only over-leaping the limits I had prescribed myself at my first setting out on this paper, and which I am afraid is already too much extended. Suffice it then to say, that this solution in the mild form, and which may be varied according to circumstances, is infinitely more efficacious as an external application on the exterior surface of the penis, than the *aq. saturnini*, both of which I have often used. I cannot, however, recommend either of them as injections between the *glans* and *preputium*, which are usually more or less in a state of excoriation or ulceration; but where the exterior covering of the penis is free from any solution of continuity, and the diseased state of the *glans* and *preputium* is not of long standing, and the latter not being indurated, this very lotion has, by applying it cold with cloths dipped therein, and frequently repeated, often proved extremely beneficial in diminishing the inflammation, so as frequently to effect the uncovering of the

 glans,

glans, whereby the mischief is more in our power. But where the *preputium* and *glans* are in a hardened callous situation, from the long continuance of the ulcerated state of both these surfaces, a discharge should be encouraged by the application of emollient cataplasms, warm fomentations, and mild injections of barley water and milk, to keep the parts clean and encourage it; the increase of which, in this instance, rarely fails to lessen the tumefaction. The external treatment on which the cure greatly depends, is left to the discretion of the prescriber. Of paraphymosis I can only say, that from whatever cause it may originate, it must if possible be reduced by manual operation; in any other way it cannot: but to describe this and the chirurgical, would be unnecessary; yet when its reduction is once effected, I know of nothing that will diminish the enlargement of the prepuce so readily as the solution.

Thus far I have extended these observations, which, as I before remarked, are certainly more minute and diffusive than I at first intended, and what may appear unnecessary to veterans in medical science; yet, as they will be read by others who may be inexperienced, and at a loss how to discriminate its use with accuracy, the apology I have here offered will, I trust, sufficiently plead my exculpation.

Sunderland, Oct. 27, 1801.

To the Editors of the Medical and Physical Journal.

Gentlemen,

THE Remarks of your Correspondent signed S. on Mr. O'Neal's case and myself, in your last Journal, are from a Dr. Scott, of Newbury in Berkshire. The Doctor has enabled me to furnish the public with his signature, by transmitting me a counterpart of the letter which he had *previously* sent for insertion in your Journal.

The Doctor was induced to put me in possession of that performance by a motive of (what he terms) *candour*. That sentiment the Doctor might have felt, indeed, in his own *peculiar* way, but, in my estimation, it savours much more of malevolence than of that gentle virtue. The public will also probably look through the Doctor's letter in vain for

his

his boasted *candour*. No remark appears in this letter that was not anticipated in my observations, subjoined to Mr. O'Neal's Case.*

Dr. Scott speaks of repelled gout, insists on its destructive influence in Mr. O'Neal's case, and protests against apoplectic affection having existed. All these are gratuitous assertions. He then politely tells the public, he does not understand my theory of gout, and that to many sentences in my publication he can attach no meaning. This must be attributed either to the Doctor's dulness or to my obscurity. Here we are fairly at issue; and the Doctor will, perhaps, have to seek his defence by presenting the public with a production much less common-placed and hypothetical than the observations contained in his letter.

The refrigerant treatment of gout continues to succeed in the most promising manner, and that even under circumstances of the most tremulous atony. It is under the sure guidance of the natural sensation of heat and cold, and expressly concedes every indulgence with respect to temperature to the changeful feelings of patients. Where a sense of coldness is felt at the stomach during the treatment, it is probably induced by the sympathetic influence of a chilled skin from the impression of local cold. It rarely indeed occurs; but when it happens, there is the same occasion for exhibiting a stomachic cordial, whether domestic or medicinal, as there is for inviting augmented heat to the surface by either additional cloathing or fire. This is the practice authorised by my theory of gout, and is particularly enjoined by my dissertation on that disease. Were a patient suffering under local inflammation from fracture, contusion, incision, or any other injury from external violence, to be chilled by an excessive application of cold water to the affected part; its effect (as in gout) may be announced, either on the stomach by sickness and a sense of coldness in that organ, or on the brain in the form of stupor. These are symptoms of diminished vital energy, and will yield to moderate excitement, on the same evident principle that benumbed fingers from extreme cold become genially warmed by increased heat. The parallel likewise holds good in the mode in which relief is obtained by additional

* See Medical and Physical Journal, No. 73, page 231.

excitement. If attempted by gentle means, it might be effected; but if solicited by abrupt and immoderate stimulation, the sinking energies of life will be more likely to be mortally exhausted, than salutarily recruited by such undue violence.

Dr. Scott puts questions relative to the previous and subsequent general feelings of gouty persons in a gouty attack, and assumes as a fact, that the stomach is almost invariably affected before the local excitement happens on the joints. That this organ is occasionally disturbed by dyspeptic symptoms, before the appearance of inflammatory swellings on the joints, is too notorious to be questioned; but my theory of gout accounts for that circumstance, by considering indigestion as a leading remote cause of the disease. If a morbid susceptibility for inflammatory affection should exist in the ligamentous and tendinous structure, the systematic derangement induced by the occurrence of indigestion, will dispose that fabric more particularly to diseased excitement; hence the cause and effect which occasionally link together indigestion and gout. But the Doctor says, indigestion is relieved by the local inflammation. Here he deserts the ground of fact, and launches into the regions of fiction, in a manner (to retaliate on the Doctor) not at all comprehensible to my understanding.

The gouty sufferer can best decide, whether either the occurrence or duration of the inflammatory excitement of the joints *charms* away indigesiton, or whether it does not rather generate, exasperate, and prolong that debilitating evil. It is, indeed, not yet to enquire if digestion be compatible with exquisite pain from whatever cause it may arise. If the pulse be agitated by severe torture, however it may be named, the stomach will sympathise too acutely in the suffering to be capable of salutary digestion, nor will that alimentary process return but with the cessation of the pain that disordered it.

Your readers' time shall not be farther trespassed on by repeating remarks already extant, on a subject fairly before the public for experimental trial. The treatment proceeds prosperously, and justifies my theory, which, whether intelligible to Dr. Scott or not, importantly avails in diminishing the affliction, and improving the health of mankind. Its practical application is equally safe and precise, if directed by the unerring guide of sensual temperature.

Dr. Scott will, of course, exempt me from any charge of breach

breach of trust in publishing his name; not indeed expressly confided to me, but given under a pretence of *candour*, not in my power either to conciliate or acknowledge; nor does any admissible reason appear why the Doctor should disclose to me his whole signature, and limit the public to a single initial of it. The Doctor should not make known under the letter S. what he would not unreservedly support by his entire name.

I am, &c.

Taunton, April 14, 1805. ROBERT KINGLAKE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MR. R. O. Millett, jun. of Hayle, in Cornwall, has the thanks of Academicus for his letter, in p. 51 of your 12th volume. It seems that, whether, according to Mr. Cuming, (p. 518 of the 11th volume) cold was the remote cause of the child's illness, or, according to Mr. M. indigested sordes and accumulation of slime occasioned it, an emetic, in the first instance, is the practice of both: and had no confidential practitioner resided within several miles of the child, an emetic would, most probably, in the first instance, have been administered to him by a relative resident in the house with him. But the apothecary justifies the different treatment pursued by himself, in the following letter to the father of the child:

"SIR, *June* 21, 1804.

"In answer to yours of yesterday, I beg to say, the leading circumstances of your little boy's illness are perfectly fresh in my mind; and that the practice pursued by me on the occasion was such, as to leave not the smallest reflection, or require the least *justification* whatever. That cold * was the remote cause of the disease, that the capillaries were in consequence contracted, (and that perspiration, which originally escaped through them, thrown into the circulation) no one had the least doubt; but that

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* Then why was it asserted to the father and mother, that it was *bile*; and that if it had been *cold*, it would have been indicated by *cough*?

an emetic was necessary, or even proper, at the time I first saw him, I most decidedly object to. First, because no sickness or nausea, or indeed any symptom whatever, appeared to call for it; and, 2dly, because a diarrhœa of green bilious matter having commenced, it was just and right to conclude, Nature had pointed out that the path to be pursued; and that the best and only means of seconding her efforts, was by giving a laxative, of which calomel had the preference, and which practice the candid and liberal Mr. Cuming does not object to. I must again insist on the impropriety of giving an emetic, which, by its revulsive and counteracting effects, would have had the worst of consequences; whilst the plan pursued was both judicious and rational, and from which the most beneficial effects were expected. Again, if an emetic was absolutely requisite, why did not Dr. A. order it when called in, at which time the condition of the child was not† materially altered? Why, for the best of all possible reasons, because it was not necessary, and its exhibition, to say no worse of it, would have been bad practice. The very indecent, ungentlemanlike, and unhandsome observations of Mr. C. upon the case in question, require some notice; but which I shall defer till a more favourable opportunity.

"I am, &c.

"B. D."

"P. S. The saline mixture and blister were neither of them ordered with a view of relieving sickness (none existing) but with the object of promoting and causing a gentle diaphoresis, thereby counteracting the spasm upon the extreme vessels."

After this defence, the parties to whom it is made have read, in a book styled *The Modern Practice of Physic*, among the disorders of children, as follows: "Teething children, about the time of cutting their teeth, slaver much, and have generally a looseness. When the teething is difficult, especially when the dog-teeth begin to make their way through the gums, the child has *startings in his sleep*, tumours of the gums, *inquietude, watchings, gripes,* GREEN STOOLS, the thrush, *fever, difficult breathing,* and *convulsions.*"

The child, whose case is in vol. 11, p. 461, of the Medical and Physical Journal, had all the symptoms above marked in

† The condition of the child was altered to great debility and emaciation; and the physician, when called in, declared it a lost case.

in *italics*, and particularly *green stools*, which Mr. B. D. calls "*a diarrhœa of green bilious matter*" The child was also then cutting his last four teeth, at the two extremities of each jaw, having the intermediate sixteen perfectly cut; all of which had been cut with difficulty, as Mr. B. D. the family apothecary, had the means of knowing. *Unless*, therefore, it is wrong to ascribe *green stools* to *teething*, and they are *always* indications of *bile*, Mr. B. D. will have to reflect, whether *a blister* (on the breast of a child two years old) *six inches or more by three*, and *calomel*, would have *the best* effects in difficult dentition. *If* they would *not*, then it is left to him to reflect, *why* he did not, by proper interrogatories, *first* learn the state of the teeth, before he ascribed the green stools solely to bile, and treated the child accordingly.

I am, &c.

Dec. 17, 1804. ACADEMICUS.

Cases of Vaccine and Variolous Inoculation, by William Forbes, *Member of the Royal College of Surgeons, London.*

THE reception, which Vaccine Inoculation has experienced from all ranks of society, affords the best possible proof of the public sentiment respecting the destructive influence of the small pox, which, even under the milder form of inoculation, exclusively of its leaving behind it various painful consequences, has, in many instances, proved fatal, and always been a source of contagion.

It was, however, to be expected, that many would oppose this new practice; and some have accordingly objected, that although the matter, when taken immediately from the cow, is a permanent security against the future contagion of the small pox, yet, that when the vaccine virus is communicated from one human subject to another, it loses that preventive influence.

To prove this, some cases are related, in which the small pox is said to have occurred after vaccination; and, whilst the advocates of vaccine inoculation appear unwilling to admit the possibility of the small pox succeeding, if the pustule have assumed the genuine character (although there were no apparent indisposition), the opponents have been equally anxious to establish every failur[e] [as a]

as arising from adventitious circumstances only, but from a real defect in the permanent power of the vaccine virus to prevent the future contagion of the small pox.

The following case of failure of Vaccine Inoculation gives an appearance of plausibility to this opinion:

In December 1802, Stephen Brown, a young man in perfect health, was inoculated with vaccine matter, in both arms; the weather was cold, and the inflammation so slow, that some days elapsed before it could be determined whether the virus had taken effect, which it did in one arm only; the subsequent progress was likewise slow in all its stages of vesication, efflorescence, scabbing, and unaccompanied with any apparent indisposition, and after some weeks the scab came off.

With matter taken from the above patient, John Heath was inoculated. The progressive stages of the vaccine pustule were precisely the same on the arms of the latter: as were also those of two children, inoculated from this last source.

On the 18th of February, 1805, Mr. John Prior, of Clapham, informed me, that the above-mentioned Stephen Brown was then under his care with the natural small pox. On seeing him, he gave the following history: That on the 11th of February he was seized with violent pain in his head, back, and limbs, accompanied with cold shivering, alternated with heat, had lost his appetite, and was thirsty. These complaints continued until the 15th; on the morning of which day some red spots appeared, first upon his face, then upon the chest and upper extremities: afterwards they were observed upon the body and lower extremities. From their first appearance, the symptomatic fever was relieved, and the eruptions went on to maturation, but were of a mild kind, and in considerable number. It is necessary to mention here, that the small pox was then in his neighbourhood.

He gave also a distinct account of the vaccine inoculation: he remembered the progress of the pustule, and mentioned his having frequently examined the arm of John Heath (his shopmate) comparing the appearances with those that had taken place in his own, the cicatrix of which is still perfect.

Every medical gentleman who saw this man was convinced, that he had the natural small pox: as a corroborating proof, two children were inoculated with matter taken from one of the pustules, on the 19th and 20th of February

February, both of whom had the disease entirely to the satisfaction of the several gentlemen who visited them.

The two children who had been formerly inoculated with vaccine matter, taken from John Heath, were now subjected to the variolous test by inoculation with matter taken from one of those patients. The local effect produced upon the infected arms was as complete as is usual in those cases where the constitution had previously undergone that change which secures it from the future influence of the variola.

It may be remarked, that the vaccine inoculation in Stephen Brown must have been perfect, as matter taken from his arm produced the same disease in that of John Heath, from whom the two children were inoculated, and whose arms likewise exhibited a beautiful specimen of the cow pox.

I shall subjoin a few observations to prove, that the cause of failure in the vaccine matter, in the case of Stephen Brown, is not to be attributed to a defect in the preventive power of the vaccine virus, but to the circumstance of his constitution not having undergone that change which is necessary to secure it from the future contagion of the small pox, notwithstanding the perfect appearance of the pustule upon his arm. This may be illustrated by the following case:

A child having the confluent small pox, was occasionally nursed by his brother, upon whose chin was observed a perfect pustule; he had no co plaint, and never had the disease. In about fourteen days after, with the previous symptomatic fever, he had a plentiful eruption of the small pox, in a mild form.

This opinion may also be supported from the analogy that appears between the vaccine and variolous inoculations, which the subjoined cases are designed to prove.

On three children, who were inoculated with small-pox matter, the appearance of the pustule upon their arms was so complete, that, although there were no apparent indisposition, several medical gentlemen, who saw these patients, pronounced them perfectly secure from the infection of the natural small pox; yet as there appeared no symptomatic fever, the criterion of the constitution having undergone the change necessary, to prevent the future contagion, they were again inoculated with variolous matter; and while two of them resisted its general influence, their arms only being infected, the other child

 had

had the usual antecedent symptoms, followed by an eruption of small-pox pustules.

Another experiment of the same kind was made upon a child in another family, under precisely the same circumstances, and (much to their surprise) with the same effect.

Some of these children had given the small pox to others, while they themselves were afterwards subject to the disease.

It cannot admit of a doubt, but that these failures were owing to the action of the variolous matter having been confined to the infected part only, which may be called one of Nature's phenomena, and are not to be ascribed to a want of durability in the variolous matter to prevent future contagion.

In consequence of similar occurrences, many were averse to the inoculated small pox, from an apprehension of future insecurity.

There appears, however, a difference between the two inoculations: in the vaccine it is allowed, that if the pustule produced be genuine, without any perceptible complaint (as was the case with Stephen Brown) the patient is declared perfectly secure from the future contagion of the small pox.

In the variolous inoculation, the symptomatic fever forms the criterion of future security.

It does not appear to me probable, that such cases of local affection will occur oftener in the cow pox than in the small pox; at least, I feel myself warranted to draw this conclusion, from having failed to produce the small pox, either by inoculation, or exposure to the contagion, in every experiment I have hitherto made, from the period of six months to five years after vaccination.

Camberwell, April 15, 1805.

To the Editors of the Medical and Physical Journal.

Gentlemen,

I HAVE lately succeeded in reducing two luxations of the humerus (the head of the bone being in the axilla) by the following simple method; and though it does not differ in its principle, nor much in the method, from some

others

others usually recommended, it may perhaps be found useful, in some recent cases of this accident.

Let the patient be seated on a chair of the usual height; then take a common soft towel, or table-cloth, put it round his body, just beneath the axilla of the dislocated limb; let each end be held by a stout assistant, seated on a chair close to the patient; tie another soft towel upon the dislocated arm, in a very firm manner, just above the elbow, and let both ends of it, when tied, be of a length sufficient to be held firmly by two other men, sitting on chairs directly opposed to the former; let the fore-arm be then bent, and kept in this position by a fifth assistant, standing; the arm being placed at a right angle from the body. Let the surgeon now seat himself on a chair, or stool, about six inches higher than that on which the patient is seated; let him sit on the outside of the patient's arm, opposite to the dislocated shoulder, with his right foot placed on the patient's chair, so as to raise his knee nearly into the axilla; let him then take a ball of fine packthread, wound together in a solid manner, of the size of a man's fist, and place it (previously wrapped in linen rag) in the patient's axilla, directly under the head of the dislocated humerus, keeping it in this situation with his knee. Let the two assistants, holding the towel tied round the arm, be next directed to make a steady, progressive, and strong extension of it; and let those placed on the opposite side keep the patient's body firmly seated on the chair in its natural position, neither pulling so strongly as to incline it towards them, nor with so little force as to suffer their antagonists to draw it to the other side. When this extension, and counter-extension, have been thus gradually made, with all the force the assistants can use, for a few seconds, so as to convince the surgeon that the head of the dislocated humerus is probably brought on a level with the edge of the glenoid cavity of the scapula, let him, at this instant, raise the ball in the axilla with his knee, by a strong muscular exertion, which the position of his foot on the chair will enable him to do in a very forcible manner; at the same time, let the palm of one hand be pressed firmly on the acromium, so as to prevent the body from being raised upwards, whilst the humerus, firmly grasped near the elbow with the other, is depressed. If these united exertions be made steadily, and at the same instant, I am confident that an intelligent surgeon will, for the most part, succeed in reducing a recent luxation of the humerus. I have already stated, that I have lately succeeded in two cases very readily; the first had been

been dislocated a few hours only, and the last about a week.

Two or three years previous to my having practised this method, I had reduced three dislocated shoulders, by suspending the body very gently and gradually by double pullies; one of which cases had been dislocated near a month. In the first case, the head of the bone slipped into its place the moment the patient was suspended: in the second, while in this position, he became faint, but the reduction was not effected by the suspension; at the instant, however, that his toe touched the ground, on being let down, and before he had recovered from his swoon, I took advantage of this situation, and succeeded in reducing the shoulder, by putting the fist of one hand into the axilla, and pushing the head of the humerus upwards with a little jerk, while, with the other, I depressed this bone, at the same instant, by taking hold of its lower part, near the elbow. In the third case, the suspension by the pulley did not reduce the bone; but, from the success I had had in the preceding case, I put a ball of packthread into the axilla with one hand, and depressing the humerus at the elbow with the other, I succeeded in reducing the limb in the manner already described; this too was done at the instant the patient's toes touched the ground after the suspension.

I am, &c.

Grafton-street, May 1, 1805. THO. WHATELEY.

To Dr. BRADLEY.

SIR,

IF the following observations meet with your approbation, I will thank you to give them a place in the Medical Journal. They were suggested by a perusal of Dr. Reid's paper on the Vapour Baths of Russia; but are not intended as an answer to that gentleman's query, which is left for the solution of the learned and ingenious proposer, whose practical skill and acumen I have frequently observed with pleasure.

Vapour baths are in very general use among the northern nations, either as articles of luxury, or as preventives or cures of disease. The Esquimaux, the Icelanders, and the Kamschatdales, delight in the use of stoves, heated perhaps to a greater degree than those of Russia. The North American-

can Indian, when attacked by sickness, converts his wigwam into a vapour bath, and, when hissing hot, plunges into a river through a hole in the ice. No doubt can be entertained of the safety of the practice, nor, from its general use, of its salubrity. It would appear almost as if suggested by instinct, in such high latitudes, to obviate that degree of constriction on the surface, occasioned by long-continued cold, by supporting the balance between the external and internal circulation, and thus preserving the vessels of the skin in a permeable state.

This practice of alternating extreme degrees of heat and cold, appears, to a delicate person, fraught with danger; and he experiences a sensation of horror from the bare idea of feeling, "by turns, the bitter change

> Of fierce extremes, extremes by change more fierce,
> From beds of raging fire to starve in ice."

The habit of bearing these changes, so as to derive pleasure from them, is laid in early infancy, and continued through life, at regular periods. Mr. Taunton experienced a violent smarting sensation on the skin, during his stay in the bath, and appears to have been a good deal incommoded by the heat, though, from the state of his pulse, previously to his entering the bath, I should not suspect him to be of an irritable habit. A similar sensation is felt on entering a salt-pan when the boilers are at work; and few people enter these places, for the first time, without drawing back as soon as the steam strikes the face; the heat is extremely pungent, and gives the sensation of flaying.

The constitution of the common Russian is naturally robust, and possessed of a low degree of sensibility; his nerves are of iron, and his functions are regulated by mechanism. This might be inferred from the horrid punishment of the knout, which none but a Russian could survive; and from organs of digestion, equal to those of an ostrich, and which can bear with as little annoyance a bumper of brandy or of train oil. To a Russian, brandy and the hot bath constitute the "Panem and Circenses;" they are strongly impressed with their salubrity, and never fail, in sickness, to have recourse to these Herculean remedies. Many physicians have celebrated the Russian baths; and have even ascribed the comparative mildness of the small pox in Russia to their use, especially Sanches, in a treatise, "De cura variolarum vaporarii ope apud Russos, omni memoria antiquioris, usu recepti." Dr. Currie, in his valuable Medical Reports, ascribes the safety and agreeableness of these sudden transitions merely to an increase of the heat of

of the body above the natural standard; but it appears to me more just, to ascribe it to the increased activity of the cutaneous vessels. These are powerfully stimulated by heat; and in habits such as those under consideration, where the contractile power of the muscular fibre is great, the vascular action is not soon overcome. This action of the cutaneous vessels the Russians endeavour to increase artificially, by gently flagellating themselves with bunches of twigs, or leafy branches, which occasionally also serve the purpose of fig-leaves during this assemblage of the sexes; and when, by this mode of irritation, a considerable degree of erythema is excited upon the skin, they plunge without fear into the coldest streams.

In hot climates, where the body is relaxed by long exposure to an uniformly high degree of heat, an incautious exposure to a stream of air, but a few degrees perhaps below the temperature of the body, is not unfrequently followed by alarming consequences. The morbid effects, in this instance, neither arise from the retention of any thing acrimonious, nor from diminution of temperature, but from the sudden disturbance of the circulating mass. The atonic state of the cutaneous vessels is so great, that it can scarcely be called action; a slight degree of cold, especially if assisted by moisture, produces immediate constriction, and a sudden determination of the circulating mass to the interior parts, which have been long in a comparative state of depletion, and are now unable to bear so sudden a shock. The effects produced by this change are various: when the determination is made to the chylopoetic viscera, and especially to the liver, cholera most commonly ensues; when, to the whole extent of the bowels, diarrhœa; and when to a smaller portion, dysentery. These effects also more readily ensue, according as each part has been weakened by previous attacks. In our changeable climate we frequently observe the vibrating balance between the skin and the kidneys; a person going into a cold room feels a desire to void his urine; or a flow is made to the pituitary membrane inducing coryza; or to the lax and spongy tonsils, inducing cynanche. If these effects do not follow exposure to much higher degrees of cold in Russia, we must attribute it to the same cause which renders them strangers to what we call nervous complaints. Nor does it appear strange, upon reflection, that pleasure should be derived from the alternation of high degrees of heat and cold; because when the skin is in the proper state of excitement, it seems probable that the

the shock communicated to it will be only equal to what it would have experienced from the mean degree of temperature in the ordinary state of excitement.

Jan. 11, 1805. MEDICUS.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MR. Whitlam's account, in your last Number, of a case of inveterate chronic rheumatism, relieved by the use of the solutio arsenici, was of course exceedingly gratifying to me; and I wish most heartily, for the sake of those afflicted with that tedious and painful disorder, such of your correspondents as have made trial of the same remedy, would give equal publicity to their experience. What I have seen of its effects, since I published my first account in your Journal, has only tended to confirm what I there advanced; and I have scarcely a doubt remaining, but it will prove a most valuable medicine indeed, even in those states of the disease which we have hitherto been very little capable of relieving.

The lady under Mr. Hardman's care, before referred to, has been repeatedly and effectually relieved from returns of the symptoms, by the use of the solution.

William Daval, a farming labourer in Staffordshire, ætat. 60, in the course of the last summer obtained a complete cure, by the same means, from a combination of lumbago and sciatica, which had crippled him for months, and baffled the force of the usual remedies. I had the pleasure of seeing him about two months after his recovery, holding the plough with his usual strength and spirits. His thankfulness was excessive; and his expression of it was such as would have excited delightful emotions, even in the calmest of beings.

As the safety of the remedy has been established, by a long and general employment of it, in other complaints, I hope the liberal humanity of my professional brethren will prompt them to have recourse to it in chronic rheumatism, upon the earliest occasions, and to communicate the result of their experience without unnecessary delay; in all probability, the comforts, if not the existence of many fellow creatures, now miserable, are depending upon their compliance. I am, &c.

Manchester, Jan. 12, 1805. JOHN JENKINSON.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I AM induced to trouble you with a line on the subject of fractures of the cranium, from an idea that the trephine is oftener used than is really necessary; and if, by any means, we can lessen the pain attending those accidents, without increasing the danger, I think it behoves every surgeon to contribute his observations.

In the course of my practice I have had thirteen cases of fracture in different parts of the cranium, nearly all with more or less depression. In eight of these I did not apply the trephine, and these patients all recovered without any very serious symptoms occurring, and I have known several of them, for years since, enjoying good health.

I will now state two cases, recently occurring. The first, Oct. 18, a farmer, aged 25, rather delicate in make, discharging a gun, it burst, and the breech struck the upper part of the forehead, and depressed a part of the frontal bone, nearly the size of a tea-spoon bowl; he was stunned and beat down, but after a time got home. Next morning, when I was called, I found symptoms of depression, dilated pupil, great pain in the head, sickness and vomiting, slow pulse, and great loss of strength. The wound was about an inch long, and the pericranium was detached from the bone, so that the depression was plainly to be seen. As the case did not appear urgent, I determined to try the effect of bleeding, copious purgings, with a low regimen and a dark room, dressing the wound lightly, and was much pleased to find every appearance go on favourably. The man was able to go out in about three weeks, the sore quite healed, and has remained well ever since.

In the second case, which happened the 22d of November, to a boy, aged 14: As he was lowering a piece of timber into a boat by an engine, the windlas slipped from his hands, and struck him a blow on the parietal bone, about an inch above the ear; a portion of scalp was detached, and the fracture and depression were more extensive than in the first, and so also were the symptoms; however, the success of former cases induced me to try the same plan, of bleeding and a low regimen, and uniting the scalp by the first intention, which could not be done in the former case, as the parts were bruised and burnt by the powder; and am happy in saying every thing went on to my wish; in three weeks the

boy

boy went home to his friends, and has continued well ever since.

I am well aware the cases above recited are very imperfectly drawn up, and if my practice is generally followed, it will answer no good end to insert them in your Journal. But if they are likely to make the younger practitioners in surgery wait a short time, in many cases, before they use the trephine, that is the utmost of my expectation in sending them to you, and you are at liberty to publish them if you please. I am, &c.

Wootton Bassett, Jan. 8, 1805. FRANCIS GODDARD.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the course of the very extensive Inquiries regarding health and longevity, in which I am at present engaged, it naturally occurred, that much useful information might be obtained, from ascertaining the means by which persons who are trained to athletic exercises are brought to that height of strength and activity which it is necessary for them to acquire; and by what processes the speed, the strength, and the courage, of the brute creation can be improved. With a view of obtaining a knowledge of the facts from which such important consequences result, the enclosed paper, and the queries therein contained, were drawn up.

As the insertion of that paper in your valuable Journal would be of material service, in procuring an important addition to the information that may be expected from other channels, I beg leave to enclose a copy of it for that purpose; and I hope that your friends and correspondents will take an early opportunity of transmitting, either to me, or to the Publisher of the Medical and Physical Journal, any information connected with the particulars alluded to in the paper, which they may consider to be material.

5, Terrace, Palace Yard, Westminster,
April 23, 1805.

I am, &c.
JOHN SINCLAIR.

PROSPECTUS, &c.

A few extracts from this prospectus will give the public an insight into the author's views, and the plan of his work:

"It is observed," says he, "though all must die, yet that

some

some individuals live for a shorter and some for a longer period; that while some perish during infancy or youth, the existence of others is prolonged for many years.

"It is also remarked, that while some individuals enjoy the possession of their mental and corporal powers, almost unimpaired, during the whole period of their existence, others are occasionally, and in some cases perpetually, in a sickly state; the one of course possessing the advantages of *health,* and the others being the victims of *disease.*

"It has farther been noticed, that many persons, by means of various remedies, which experience has pointed out, have recovered from those disorders with which they have been afflicted, and from the personal accidents which they have unfortunately undergone, so as to regain their former health and strength.

"Hence arises the threefold division of the general subject of Life and Health; namely, into the means, 1, *Of prolonging life,* to which some authors have given the name of the Macrobiotic Art; 2, *Of preserving health;* and, 3, *Of curing and alleviating disease.*

"Of the means by which persons are relieved from the various disorders and accidents to which they are liable, it is not the object of the intended volumes to treat. Such particulars comprehend the arts of medicine and of surgery. There a vast and extensive field opens itself; to the cultivation of which thousands of able men have directed their attention, and in many respects successfully, though these arts have not hitherto reached that degree of perfection which it is so desirable, for the comfort of human nature, they should attain.

"Of the other two objects, however, the means of prolonging life, and preserving a state of health (not as distinct propositions, but as being, *when properly viewed,* so intimately blended together, that they can hardly be separated) it is the intention of the author to treat. What inquiry can be of more real importance? If health be the greatest blessing of life, and if disease render man miserable, what can be more desirable, than to ascertain the means of preserving the advantages of the one, and of counteracting the ravages of the other? If by prolonging our existence also we can be of more service to mankind, from the superior knowledge which greater experience, and longer observation, must generally furnish, what can be more important, than to endeavour to preserve our health and strength, that we may be the better enabled to perform beneficial and useful actions? For the power of doing good is

is the proper limit by which our wishes for existence ought to be bounded.

" When all these particulars are considered, it surely can require little apology from any person who has applied his mind to such subjects, for venturing to lay before the public his ideas concerning them.

" It may be proper, at the same time, briefly to explain how an individual, unconnected with the medical profession, has been led to pay such particular attention to the subjects of health and longevity, as to consider himself competent to the task of instructing others regarding such interesting particulars.

" Though naturally possessed of a sound constitution, untainted by any hereditary disease, yet, about six or seven years ago, the author had fallen into a weak and enervated state, and found himself unequal to the task of managing his own private concerns, of prosecuting useful inquiries, or of applying his mind to political pursuits, with his former energy and zeal.

" As age advanced, he found many of his contemporaries either getting into a declining state, or sinking into the grave, much sooner than he had expected. The causes of these events he naturally wished to ascertain, and to determine whether so premature a decay might not have been prevented.

" In carrying on his statistical inquiries (a branch of which, namely, the effects of climate, was necessarily connected with the points in question) it was a matter of astonishment to find how few of the human species, in proportion to the numbers born, attained any considerable extent of years, even in the healthiest countries.

" Above all, it was a matter of regret (and the longer one lives the more striking it becomes) that even while men do live, their existence is too often embittered by disease, and their life a burden both to themselves and to others.

" These circumstances, united, naturally directed his attention to the subjects of health and longevity.

" Having printed, both in English and French, a short treatise on health and longevity, accompanied with several questions, in order to obtain additional information, he has thence fortunately procured a variety of important communications, in manuscript, both from foreign and domestic correspondents, by which the intended work will be considerably enriched.

" But, in particular, he has to rely on the treasures of knowledge

knowledge, regarding health and longevity, published by various authors who have already written on these subjects, and of whose works he has made a collection to the number of about two hundred distinct treatises or volumes, every one of which is, either directly or indirectly, connected with the proposed inquiry. From this immense mass he proposes to extract whatever seems to be peculiarly valuable.

"On subjects respecting which so many volumes have been written, it will not be easy to draw up a new work, the form of which will give universal satisfaction, as many will desire a more condensed, and many a more detailed explanation.

"To gratify the first, it is the author's intention to consolidate, into one volume, octavo, all the knowledge which he considers to be *essentially necessary* for the attainment of health and longevity. The generality of mankind will not have leisure to read, and many of them cannot afford to buy, a larger publication.

"But, for those who may be desirous of investigating the subject farther, he intends to print, in four volumes, octavo, distinct from the other work, but to be published at the same time, an account of the writings and opinions, 1, of ancient, 2, of foreign, and, 3, of British authors, who have discussed the subjects in question.

"The most natural division of the subject under consideration seems to be, to point out,

"1. The circumstances which necessarily tend to promote health and longevity, independent of individual attention.

"2. The rules which, if observed by an individual, have a tendency to preserve health and existence, even where these independent circumstances are wanting. And,

"3. The regulations by which the general health and safety of a great community are protected from the various injuries to which they are likely to be exposed.

"PART I.

"*Circumstances which necessarily tend to promote Health and Longevity.*

"It will hardly be disputed, that while individuals differ so much from each other, with regard to a variety of important particulars, as the climate in which they reside, the manner in which they are formed, &c. that there must necessarily be a material difference with respect to the duration of their lives. It is essential therefore, in the first

first place, to ascertain what these particulars are. It seems to me, that they may be all comprehended under the following general heads:

1. Form and growth of the individual.
2. Natural constitution.
3. Disposition of mind.
4. Parentage.
5. Climate.
6. Education.
7. Rank in life.
8. Particular occupation.
9. Connubial connexion.
10. Sex.

"PART II.

"*Rules for preserving Health and promoting Longevity.*

"It is evident, that if men lived uniformly in a healthy climate, were possessed of strong and vigorous frames, were descended from healthy parents, were educated in a hardy and active manner, were possessed of excellent natural dispositions, were placed in respectable situations in life, were engaged only in healthy occupations, were happily connected in marriage, &c. &c. there would be little occasion for medical rules. But it is universally known, that some individuals enjoy only a part of those advantages, whilst others possess hardly any of them complete. Hence arises the necessity of attending to those *rules* which observation and experience have pointed out as being the most likely to counteract the disadvantages arising from so material a want, as of any of the natural advantages above enumerated. These rules relate to

1. Air.
2. Diet.
3. Digestion, and its effects.
4. Clothing.
5. Habitation.
6. Exercise of the mind.
7. Exercise of the body.
8. Sleep.
9. Amusements.
10. Habits.
11. Temper, or disposition.
12. Medicine.

"To which will be added, several rules of a *miscellaneous nature*, concerning the means of alleviating the effects of the various accidents to which persons are exposed; together with observations on the necessity of adhering to different rules, according to climate, peculiar occupations, &c.

"PART III.

"*Regulations for the Health of the Community.*

"The police of public health is a most important branch of the proposed inquiry; and the events which have recently

cently happened in Spain, and at Gibraltar, have given it additional interest. It may be treated of under the following general heads:

1. Police of climate.
2. Police of physical education.
3. Police of diet.
4. Police of public amusements.
5. Police of habits and customs.
6. Police of public institutions.
7. Police for the health of sailors and soldiers. And
8. Police of medicine, and the means of promoting its improvement.

Observations on the training of Pugilists, Wrestlers, Jockies, and others, who give themselves up to Athletic Exercises; with some Queries for discovering the principles thereof, and the process of training Running Horses, &c. with a view of ascertaining, whether the same can furnish any hints serviceable to the human Species.

THERE are habits which seem to be natural to, and congenial with, the several periods of life. The child should merely suck, sleep, and vegetate. The boy should ramble wild and unconstrained, little oppressed with tasks or studies, and nourished with abundance of simple food. The youth should be temperate, sober, active. The old man quiet, sedate, self-indulgent; should have long sleep, delicate food, rich wines, and agreeable temperature; little labour, and a cheerful mind. Nature assigns us vigour, spirit, enterprise, and foresight, in the early part of life, to treasure up the needful indulgencies for age. Parents are careful of our first infancy; we ourselves ought to provide for our latter childhood.

Next to the free circulation of the blood, through all the body, terminating in the surface, that of the free transit of the blood through the lungs, is essential to health.

The oxydation or chemical change produced by air upon the blood, is essential to its vital properties. A free and powerful respiration is most essential to a fresh colour of the face, to lively spirits, and cheerful feelings, and to the healthy and vigorous actions of the body. "It is my breathing hour of the day," says Hamlet to Ostric. It is a princely thing to set apart hours for exercises; and there is little doubt, that if all those, who linger away their hours in luxurious and indolent relaxation, were to assign a regu-

a regular portion of their time, to the hardy and manly exercises of walking, riding, fencing, &c. and would take *their breathing hour,* they would breath long and well.

These reflections naturally arise upon considering the almost incredible perfection, to which those, whose profession it is to train men to athletic exercises, have brought their respective arts. By certain processes, they improve the breath, the strength, and the courage of those they take in hand, so as to enable them to run thirty, or walk a hundred miles, in a given space of time; to excel in wrestling, or to challenge a professed boxer. Would it not then be a most important addition to the facts we already know concerning the means of improving strength, and ensuring long life, if authentic information could be procured from those districts where athletic exercises prevail, what are esteemed the best and surest processes for training men for foot-races, trials of strength in wrestling or boxing matches, or for raising the strength and courage of game-cocks, or improving the wind, strength, and speed, of running horses to their highest pitch.

I question whether the athletics of old used similar means; whether they were equally successful; whether there ever were, in any climate, age or country, more hardy or powerful frames than those of our English pugilists. In Cooke's voyage, we are told of the marked inferiority of the English sailors, in wrestling or boxing, to the naked sun-burnt heroes of the South Sea islands. But an English sailor, though full of spirit and vigour, is as clumsy as a clown, and could not even row against an inhabitant of the Sandwich Islands. An English bricklayer, blacksmith, or draymen, however, who liked the sport, and was practised in balancing and striking, might have challenged the whole of the tawny nation.

With a view of collecting such important information, I am very anxious that the following Queries should be proposed to those who profess the art of training pugilists, wrestlers, and runners of foot-races, by such intelligent men as have the opportunity of conversing with them.

1. By what criterions or tests, they judge of the muscular strength, or wind, or other qualities of those who seek to put themselves under training? What is the earliest, and what is the latest age they would attempt to train?

2. How they judge of the length of time that may be required for bringing a man into good plight, vigorous

health,

health, and free breathing? and what period of preparation is usually required for running a match?

3. What purges they use; and in what succession; and by what rules do they administer them; and how do they judge of their effects? Is the purging only preparatory, or is it regularly continued? Is it meant, by this process, to reduce the plethoric state of the system, (on the idea that there is too great a quantity of blood), or is it simply designed to put the bowels in the most favourable condition, for easy and good digestion? Is the reducing the actual size of the belly, necessary to more free and perfect breathing?*

4. Is the diet rich or simple; of animal food, or of vegetable; in great quantity, or sparing? Is it increased gradually, or diminished gradually? What meals have they in the day; and at what hours; one or more; frequent feeding, in small and fixed portions, or full and substantial meals? What kinds of flesh or meat is reckoned the best; whether beef, mutton, veal, pork, lamb, or fowl? Are any kinds of fish allowed? What quality of food is most conducive to strength? What quantity is necessary for maintaining the system in its most perfect state of vigour? Do they feed much in the intermediate days of the purges? Is abstinence required when they take their physic?

5. What kinds of liquors are reckoned best? Whether wine, ale, water, spirits, &c.? Whether given hot or cold; in what quantities; and when ought they to be given?

6. Are the very violent perspirations into which they throw their patients, designed to reduce the system, to extenuate the fat, to lessen that quantity of blood, the excess of which makes us giddy or short breathed; or is it merely designed to produce a new condition of the skin, more favourable to health, and muscular vigour; to produce a sharper appetite; a greater demand for food; and a quicker nourishment, or a greater nutrition from a more slender diet? Is the sweat at first produced by exercise, and only

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* The effects of taking up a running horse from idleness and soft pasture, to hard food and regular exercise, is attended with this peculiar effect, that while the animal becomes lank, sleek and glossy, while he gets fire in his eye, and a new vigour in his limbs, and wind and speed, his belly, (swollen with coarse indigestible food, eaten in great profusion), is drawn into half its size. May we not then presume from this analogy, that the state of the belly has a remarkable effect upon the wind?

only continued by the person, when trained, being put between feather beds, and encouraged by drinks; or is it produced by force of sweating drugs, or violent heats, or by continued friction? At what hours are the perspirations brought on? How is the pupil treated when the sweat is over? What becomes of the skin of a fat man, when, by the process, he is reduced in size, and rendered lean? Does it hang loose, or is it tight? Has it any effect upon the bones?

7. What hours of exercise do they require of their pupils during the day? At what hours do they send them out in the morning? How long do they continue abroad? Are they loaded with clothes after the body is reduced, and becomes limber, and thin and muscular; or only while the sweating process continues? Are they fed before they go abroad, or when they return? What trials are made of their strength? When is a man known to be up to his full strength and breath in training? At what hours do they go to bed? What sleep are they allowed? What indispositions are they subject to during training? Are there any circumstances by which the process may be interrupted; or any circumstances, in consequence of hich, it must sometimes be abandoned.

8. What is the state of the health, after they give up training? Are they subject to any complaints; and what are they? How long does the acquired excess of strength continue?

9. It is most interesting to learn, on which part of this process, the purging, the sweating, the exercise, or the feeding, they most depend; and whether it procures a permanent increase of vigour, easily maintained by suitable diet and exercises, or only a temporary excitement, calculated for the particular occasion? Also, whether persons have ever thought of undergoing this process, not for the purpose of running matches, but to recover health; with what success this has been done, and whether it is to be recommended for gout, corpulency, asthma, nervous disorder, or other maladies, as likely to be of service?

These are questions, of the importance of which, those who are best able to answer, may not be fully aware. But nothing which so suddenly changes the powers, and the very form and character of the body, from gross to lean, from weakness to vigorous health, from a breathless and bloated carcase, to one active and untiring, can ever be unimportant, either to the art of physic in general, or

to that branch of it, more immediately connected with inquiries regarding health and longevity.

The queries to be put regarding jockies, running-horses, or game-cocks, may be to the following effect:

Jockies

1. What is the process used in training them, and reducing their weight?

2. What effect has it upon their health and strength?

3. What effect has it upon their mind, in regard to courage, quickness, &c.?

4. How long do these effects continue?

5. After being reduced, do they quickly get fat again, or do they continue long in the state to which they were brought?

6. Are jockies, accustomed to be thus treated, healthy and long lived?

Running Horses.

1. What are the principal objects to be attended to in regard to running horses? Do their perfections depend upon parentage, and whether most upon the male or the female? Is it necessary that the mare should have gone her full time, to bring a perfect foal? Is the gradual growth of the foal essential? Is there a great difference, in regard to natural constitution, between horses of the same parentage? What kind of form is in general preferred? Do you prefer great or small bones? Which sex is preferable for speed, and which for strength?

2. What is the best age for beginning to train horses for the turf? Are they first put upon grass? What is the effect of soft meat? When should they be put on hard meat? What are the effects thereof? Is it necessary to purge them frequently? Have the purges any tendency to weaken them? What food is reckoned the most nourishing? How often are they fed? What drinks are given them, and how often? Whether hot or cold? Is it necessary to keep their skin perfectly clean, and how? Is it necessary to make them perspire much? What exercise is given them? How is the training completed?

3. After the training is completed, can the perfections thereby obtained be easily kept up? Does the process effect merely a temporary change, or does it last during life? Are running horses as long lived as others, or do they soon wear out?

GAME COCKS.

1. Does the superiority of game-cocks depend upon parentage? Which is of most importance, the male or the female? Is it of any consequence that the cock should arrive rather gradually at maturity? Is there a great difference in point of strength and constitution, in game-cocks of the same parentage? Do you prefer great or small bones?

2. When do you begin to feed the young cocks? What diet and drink do you give them, and what is the process by which they are brought to the greatest possible height of strength and spirit?

3. When the game-cocks are thus trained, how long do the effects thereof last? Are they temporary or permanent? Do game-cocks thus trained live shorter or longer than others of the same species?

4. What drugs are given to fighting-cocks immediately before the main begins? Is it not usual, by giving them saffron, (or some drug, which has the same effect with opium, as used among the Janisaries, or brandy among the French soldiery), to excite an unnatural and short-lived courage? What are the effects of such drugs? and how do they manage the feeding up to this point, so as to take advantage of this momentary excitement?

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT affords me peculiar pleasure to see in your Journal for the present month, that Dr. Jenner's* Communication respecting Herpetic Eruptions impeding or preventing the perfect action of the Vaccine principle, has arrested the attention of some of your Correspondents; and I heartily wish, with those gentlemen, that medical practitioners, would be particular in searching their patients to discover any cuticular disease, with a view to remove it, if practicable, previous to vacciolation. That cuticular complaints, and especially herpetic, when inveterate, do more frequently prevent the proper progress of the vaccine

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* See Medical and Physical Journal for August 1804.

cine vesicle than s generally known, I am perfectly convinced, having seen in my own practice several instances, where I could not produce the true vesicle on children who had been subject to eruptions on their heads and on different parts of their bodies and extremities; in which cases, the vesicle and areola were completely formed as early as the sixth day. Those children were of course revacciolated, when their eruptions had either been removed by appropriate medical treatment, or had spontaneously disappeared. I was not prepared to ascribe the spurious vesicles produced in those cases, to the presence of herpetic eruptions or psoriasis difusa, until I read Dr. Jenner's interesting paper above alluded to, which has called my attention to the subject, and determined me not to vacciolate in future, when any cuticular complaint exists (except in very slight cases) until it shall have been perfectly cured. I have, in another place, observed, that "Gentlemen could not become all at once perfect Vacciolators;" and might not many, at the commencement of their practice have produced spurious cow-pox, either from the presence of the above disease, or some other cause, and yet thought they had produced the genuine? And, Query, might not many of those children, who, *as we are told*, have had the small-pox subsequent to vacciolation, have had the spurious in lieu of the true cow-pox, when the practice was still in its infancy? I trust more of your Correspondents will turn their thoughts to this subject, it merits the attention of both vaccinist and antivaccinist; the former will see in it an enemy to vacciolation, which, now discovered, will be less dreaded than when concealed. The latter will, I hope, be sufficiently candid to allow, that, it is probable, several of the subjects who, as reported, have had small-pox after Cow-pox, *never had the genuine*, but the spurious, which affording no security against small-pox, it ceases to be a matter of wonder that they should take the latter disease.

I rejoice to see the progress of vacciolation on the Continent: in France, as communicated in the Medical Journal for this month by Mr. Ring. I am also happy to state, from the most respectable authority, that only two persons died of the small-pox at Vienna during the year 1804, and they were both imported cases. At Berlin, also the small-pox is done away; and Mr. Shoolbred,* acquaints

* See his Pamphlet.

quaints us that the small-pox is extinct among the Europeans at Calcutta: These important facts have been produced by the vaccine inoculation.

Foreigners have certainly gone more unitedly, steadily, and sensibly forward in the great work of exterminating small-pox, than we have at home; probably they have felt nothing of that envy and prejudice which have started up in England; and to this is owing their extraordinary success. Let us hope that the period is not very distant, when medical gentlemen, in England, will be as unanimous and as successful in the practice of vacciolation, as their medical brethren in Paris, Vienna, Berlin, and in the East Indies.

I will not intrude longer on your valuable Journal than just to state, that in my practice I still continue successful, and have not, to the present day, met with a solitary instance of *even the slightest suspicion* of small pox subsequent to vacciolation,

There being no public institution in this town, for the gratuitous inoculation of cow pox, I have, with a view to benefit the poorer classes of society, and to assist in the great work of exterminating the small pox, lately commenced vacciolating the poor free of expence; and I am extremely happy to add, that many applications have been, and still continue to be made to me, to receive the benefit of that great blessing.

I am, &c.

Queen-street, Portsea, May 9, 1805. SAMUEL HILL.

To the Editors of the Medical and Physical Journal.

GENTLEMEN, *Salisbury Square,* 2, *v.* 1805.

THE "literary assassin," may screen himself under the veil of a fictitious signature, (vide Medical and Chirurgical Review, July 1804); or by withholding all manner of subscription (id. March 1803). The Philologos and Eosaco of your late numbers, are characters of a very different description. It is pleasant even to reply to the ingenuous unknown. I have not a doubt but the case mentioned by Eosaco, in 399, was a complete case of vacciolation; and the deep hole in the centre, whence a considerable quantity of pus was discharged, must only have been produced by a rather heavy application of the lancet at the time of the

inoculation.

inoculation. Such appearances of irregularity very frequently meet my eye; on which occasions I immediately remove the scab, wipe out the subjacent mass of pus, (enough of it to produce on one and twenty subjects a completely spurious, if any, effect by inoculation) and then, cutting up the vascular ring which bounded it, obtain only the true vacciolous bunoserous, Jennerian, or guardian fluid.

My unwavering confidence in the above conclusion arises from the very circumstantial statements of Eosaco, both as to the facts, and the time of their happening. Blood was drawn at the time of inoculation; this was by too heavy an application of the lancet. Yet the matter was not washed completely away; some minute particles of it were received by the cellulæ, or loculi *sub cuticula*, or by minute ramifications of absorbents, or veins, or nerves, or whatever else they may be which are first acted upon, and which, accordingly as they may have been cut or wounded by the instrument, may have immediately laid hold of the virus, or may for a time have collapsed, or become paralysed, producing those varieties in point of time and appearance, which now and then occur. The appearance on the eighth day was such as proved, that genuine matter had been applied, and that the perfect effect had been produced. Had the inoculation been performed lightly, the pock would not yet have been so large, and would have had a more transparent appearance; the areola might also have been rather later, but not more perfect in its appearance. The characteristic scab would have filled up the central part of the pock, which pus, producing successively the yellow and green appearances, induced by the wound from the lancet, had completely occupied. The scab would have exhibited the gradations of shade from yellow to dark brown; it would not have cracked, but, thickest at its centre, would at length have turned out, or fallen off, firm as a tamarind stone.

How happens it that the lancet thus sometimes produces, besides the proposed effect (infection) so great a collection of pus in the centre of the pock? A similar wound in an ordinary way would not be greater in its effects than, in dress, the female very commonly experiences from a scratch of a pin, the man from a scratch of his razor? Does the virus introduced prevent the ordinary healing process being set up as on the surface, by giving the circumjacent parts a different action to occupy them with; and does the healing process hereby become a more deeply-seated business with formation of pus, &c. burrowing deeper sometimes than the pit which that congeries of cells, the whole sub-

stance

stance of the vacciolous pock, does produce and occupy, invariably leaving the indelible cicatrix.

The following extracts, from a letter of Dr. Jenner, must be acceptable to many of your readers.

J. W.

"Dear Sir,

"I have enclosed a few ivory points, coated with vaccine virus. It is just taken from a fine eight-day pustule, and I could wish you to infect two or three children with it. I am introducing no stranger to you; but a branch of that friend of humanity with which you became first acquainted in the Mediterranean. In short, it is from my old stock, which we have been constantly using here from the year 1799. It has been in constant use in my own immediate hands from December last. One of my principal motives for wishing to see it revived at the Central House is, that any gentleman may have an opportunity of witnessing the permanency (with respect to its qualities) of the vaccine fluid for six successive years. During this time, it has been constantly passing from one human being to another. You will not perceive any difference in the pustules excited by this and that you are now in the habit of using.

"My paper on Herpes is unpopular, I find; I am sorry for it. But for all this, I hope you will bear an eye to it. Indeed you have already borne witness to those facts inculcated by me long before my departure from town.

"A very curious and interesting case has lately occurred; you shall have the outline.

"A child was inoculated for the small pox; the arm inflamed and *festered* to a considerable extent. Some time after, she was again inoculated with small-pox virus, and the result was not unlike the former inoculation. After the lapse of a considerable length of time, she was inoculated with active vaccine matter. The arm inflamed to a great extent, and a large pustule was quickly formed, but wanting in its perfect character. I was consulted as to the safety of the child, and of course gave an opinion that it was still insecure. On inquiry, I found it had been affected with herpetic blotches, almost from its earliest infancy. I recommended a remedy for the malady (which was applied with effect) and then a reinoculation with the vaccine fluid. The spell was broken (if I may use the expression) and now the vaccine sprung up, unimpeded and perfect in all its characters. Observe, during the presence of herpes, there may be no imperfection in the vaccine pock, and

and there may be, and there certainly is, every gradation between that slight deviation which is of no sort of consequence, up to that which completely denies all security.

"Yours, very faithfully,
"EDWARD JENNER."

Berkeley, April 25, 1805.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Rejoice that Dr. Walker has noticed my late Letter in the Star, without indulging so largely in those veins of flippancy and asperity, which have for some time past so much characterized his papers on the benign subject of Vaccination; and I rejoice too, because I think I read in his remarks, a confirmation and demonstration of the opinions I have undertaken to suggest. Nothing, I think, can be more obvious to every person who does not read and reason very superficially, or reason at all indeed, that the Doctor goes far apparently to subscribe opinions which he professes to combat, and to give to airy nothings or notions, as he terms them, a local habitation and a name. The indefatigable secretary, and vaccinator, (no man, I really believe, is more justly entitled to this distinction) at once tells us, "*That from the constant demands for matter at the Central House, he is daily obliged to break down pocks at all stages from their first formation till they have acquired their full dimensions, and then adds, that the parents are assured* that their children are perfectly protected.*" Now, gentlemen, at Plymouth, we had anticipated this information, for we understood several cases of secondary variolæ at least had occurred in subjects who had been vaccinated at Head Quarters; and we now venture to predict that more will occur. Without further preface, therefore, (Dr. Walker is not a man to stand upon compliments, nor do present circumstances seem to require them) we beg leave to call earnestly to the Doctor's recollection the very prominent situation which he fills; and at the same time to request him (as a great

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* Other evidence than round assurance and mere ipse dixits will now be expected.

a great exemplar of the practice of vaccination) immediately and henceforward to discontinue the unwise and unwarrantable custom in the Central House of *breaking down pocks, at all stages, from their first formation till they have acquired their full dimensions;* or that he will *not continue to assure the parents of children who have been so treated, that these children are always secure*; and that he will also immediately advertise the public of the important and salutary reformation that has taken place there.

Dr. Jenner has no where authorised such *breakings down,* such *lacerations* of the vaccine vesicle; he has, I believe, admitted, that sometimes the *accidental rupture of the vesicle may destroy its preventive powers*; *and in an Address of the Royal Jennerian Society for the Extermination of the Small-pox,* which Dr. Walker himself did me the honour to transmit me some months ago, I find enumerated among the *probable causes* of occasional failures, the following: I quote verbatim,—" or by the *genuine vesicle having been destroyed at an early stage, and the regular progress of the disease thus interrupted.*"

Dr. Jenner and all his attentive disciples acknowledge and assure us, and indeed we all know, that the vaccine principle is determined by the subtlest and nicest laws. If a single herpetic blotch, or a few blotches of inveterate psora, on a part of the skin the most remote from that where the vaccine fluid has been inserted, will now and then influence and totally transform its action; if the use of a lancet, slightly rusty, in the insertion of this delicate principle will be followed by the same effect; if the process of sealing a letter containing it, or carrying it a little time in our pockets, (and Dr. Walker has insisted at great length on these circumstances) will either render it wholly effete, or capable only of producing an imperfect or spurious affection; if other such trifling causes, which might be adduced, have been known to effect similar deteriorations, will it be yielding to visionary impulses, or dreaming dreams, if we ask Dr. Walker, with all the soberness and seriousness which the nature and importance of the question demand, whether such *breakings down of the pocks, in all their stages, from their first formation till they have acquired their dimensions,* or, in other words, whether such demolitions of an animal process preparing and elaborating a principle and a fluid of these exquisite susceptibilities, can be always inflicted on it with impunity,

punity, or without injuring, now and then, in some degree, such a product? If the vaccine vesicle, as Dr. Jenner has observed, be a congeries of cells insulated with respect to each other, must we not consider this constitution of it as a wise and beautiful œconomy of Nature for preserving its precious contents from casualty and exposure. This, undoubtedly, is the inference which Dr. Jenner draws and wishes should be drawn from it; but ample and effectual for its ends as we must conclude this bountiful contrivance generally to be, can we not as readily believe, that the *entire and repeated breakings down* of the vesicle in all its stages, &c. &c. of which we have so often been guilty, must in some instances have left not *a single cell* either *uninjured or unbroken, and consequently sometimes, in some measure, defeated it?* The resources of the human constitution, in the restoration and renovation of diseased parts, and parts which have been destroyed, often claim our highest admiration and gratitude; and if, in some cases, nothing less than new exertions of creative power can effect a complete reproduction of original organization, we find, in general, however, that all the great purposes of usefulness and convenience are obtained for us; yet, it must be allowed, that now and then the powers of the constitution are inadequate to this. This it is which, I presume, sometimes happens in the practice of vaccination. We often see children scratching and tearing with their nails the early vesicle, and see it reproduced again in most instances sufficiently perhaps, and place the subjects of it in the state of incomplete vaccination; but does even this always happen? Such, however, I believe, is the antivariolous power of the vaccine principle, as it is derived to us from the Jennerian Practice, under all the rude treatment, and under all the accidents to which the vesicle has hitherto been exposed, that the great purpose, for which we have so much abundant reason to conclude it has been given us, is probably *always obtained by it in constitutions of the lowest and even ordinary variolous susceptibility.* But when it shall happen that a degree of injury has been inflicted on the vaccine process in a subject of the higher or highest variolous susceptibility, annihilating or deranging it so much, that the slightest and most imperfect impression only of vaccinity can be transferred to the system by it; is it not very reasonable, is it at all injurious to the efficiency of the principle, to expect

pect that regular and even numerous small-pox may, in some such instances, at some future period, occur?*

The conjecture respecting the *degrees of security* given to the constitution from the *imperfect action* of virus has

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* Such a case, indeed, I have at this moment (under the observation of the medical men in this town, who, as usual, kindly and powerfully assist and co-operate with me) in the child of a very respectable officer in the Dock-Yard, Mr. Wallis, foreman of Shipwrights. This child, whom I vaccinated about three years ago, has now a numerous small-pox, but perfectly distinct, and unaccompanied with a shade of danger. At the end of the fourth day, they reached their full point of maturation, and on the fifth, all those in the face were shaded, and apparently beginning to dessicate. Vaccination took place in this child on one arm only, and Mr. Wallis assures me, *that I vaccinated children from this arm at different times.* On the cicatrix the usual indents, which are considered to be the vestiges of the respective cells to which we have alluded, are very indistinctly, if at all marked, and I think I see on it some seaminess; circumstances which shew, I think, that considerable violence had been inflicted on the vesicle. Mr. Wallis formerly suffered most severely from the small-pox; a stronger impression of bad small-pox than in his face is no where to be seen. This case, therefore, of small-pox may, *I flatter myself,* without violence to probability and truth, be *referred conjointly to high variolous* susceptibility and incomplete vaccination. This conclusion directly accords with many observations and facts which are in my possession, and which, truly, have not been made out and suborned to countenance and establish preconceived theories. Facts have here preceded theories. Although a case of this description of small-pox may, in a very few instances, be admitted to happen in the way of an exception to a general law of Nature, or, perhaps, referred to variolous insusceptibility at the period of vaccination; for it may be, perhaps, allowable to conjecture if we cannot yet believe, that where variolous susceptibility *has not yet existed,* that vaccination having here nothing to act on, may have left no anti-variolous impression on the System. To return to the vaccine cicatrix, I am inclined to think that this vestige, or sequela, has not yet been sufficiently attended to, as a test of vaccination; it will admit of a few remarks at least; neither is its extent, nor its depth, nor orbicularity, so decisively characteristic of vaccinity, perhaps, as those puncture-like indentations which we often observe on it. If the vesicle has been early and repeatedly opened by art, or has accidently sustained considerable friction, the ulcerative or purulent process which often succeeds, breaks down and destroys, it would seem, the insulation or independence of the respective cells, and leaves a cicatrix with nearly a smooth unbroken surface, or at most with very indistinct traces of indentations, and sometimes leaves it a little ridgy or seamy and uneven; neither, I believe, will these indents be seen in those cicatrices, however deep and extensive they may be, which follow those pustulous or spurious affections now and then occurring in the practice of vaccination. At present, therefore, I believe, that if these indentations are distinctly marked on a surface not less extensive than that of a split pea, we have a correct and satisfactory information of *complete vaccination.* Instantly and most gratefully, God knows, I shall relinquish these and any other ideas I have at any time advanced on this subject, the moment they are superseded by more obvious, more rational, and more probable conjecture and satisfactory explanation.

 been

been, I believe, conceded me. I no where said, nor pretended to say, that no absorption or communication, or impregnation, or whatever it may be, takes place before the eighth day of vaccination. No man, indeed, is more convinced of the contrary fact; in pages 37 and 38 of a relation of some circumstances connected with vaccine inoculation which lately happened in this neighbourhood, and published by me about two months ago, I have adduced some arguments and facts to prove this; and stronger than these I can adduce: I will mention one which is well known; if we vaccinate a child to day in one arm, and the same child on the other arm four, five, or six days hence, the vesicle on the latter will, by the time that on the former is completely formed, have overtaken it. Now this cannot happen if the system is not under some vaccine influence at the time of the second inoculation. But I have said, and I repeat my assertion and belief at this time, that *all the effects* of the process of vaccination *derivable in and necessary for some constitutions, are not completed before nor at this stage* (the eighth day) *of the vesicle, where this has been previously and repeatedly ruptured, nor always where it has been preserved uninjured and unbroken to this period of the process only.*

Dr. Jenner's experiments, therefore, with caustic on the eighth day of the vesicle, in two subjects, are most unnecessarily, and without the least application, brought so triumphantly forward, for these only serve to prove what I have already steadily endeavoured to establish. But had Dr. Jenner, in conducting these experiments, chanced to have fallen on two subjects of high variolous susceptibility, and it may very poperly and fairly be added too, had the vesicles been daily broken down from their earliest formation, until the eighth day of their growth, (with respect to these latter circumstances, Dr. Jenner is silent in his account of the experiments) some secondary variolous affection, I have no doubt, would have taken place; and on this ground, I entertain as little doubt, that in a succession of two hundred such experiments at most, secondary and numerous variolæ would have occurred; in general, however, I believe the subjects of such experiments will enjoy many, if not all the advantages of complete vaccination, viz. complete protection in by far the greater number of instances, and exemption, probably, from danger in all.

When Dr. Walker thought it would serve him to glance at my late pamphlet, and tell your readers what they knew

indeed

indeed before, that in reviewing it you had observed, it contained several pages of theory and some of hypothesis, it certainly did not suit his views to remind them of what you further announced, at the same time, that the pamphlet contained *facts in which the whole world was concerned*; than which, I have always thought, a greater commendation of it could not have been given. To every man of the least reflection, it must unquestionably appear, that my faith in the practice of vaccination is not less than that of Dr. Walker, or any other vaccinist. But it will be seen also, that I have always endeavoured to rest my faith here on principles and foundations as physical and rational as possible; and if my humble and honest attempts to place this valuable discovery on such grounds shall prove entirely abortive, I have no doubt that my object and endeavours will be considered by some sober friends of vaccination at least as commendable, by none, assuredly, so visionary and terrifying, as Dr. Walker's imagination has drawn them. When I suppress or distort a fact, my hand, I hope, will cease to direct my pen.

As Dr. Walker is a plain man, no doubt loves truth, and, I heartily believe, means well to vaccination, he will receive the following information as a mark of respect for and attention to this practice, which is intended by it; and not as an incivility directed to himself, which is wholly disclaimed:—that at Plymouth we have for some time thought he has not, with respect to vaccination, put himself in the best posture of defence, nor selected the most effectual and approved weapons. When my avocations permit me, I shall not, I believe, decline with Dr. Walker a candid and generous discussion of any circumstances connected with vaccination, which may arise in course of our respective practices. As a preliminary arrangement, however, in favour of the Journal, and the patience of its readers, let us not hereafter talk a great deal about visions, and veins, and notions, and nonsense! but let us recollect that the times and circumstances are critical and imperious; and therefore, on the score also of science, of vaccination, and our own credit, demand every consistency in conduct that can possibly be observed. A fine example for our imitation presents itself in Dr. Jenner, of whose valuable friendship and luminous correspondence, with equal pride, happiness, and gratitude I mention it, my late papers have not for a moment deprived me.

RICHARD DUNNING.

Plymouth-Dock, May 13, 1805.

To the Editors of the Medical and Physical Journal.

Gentlemen,

"Sic ego, majoris fugiens opprobria culpæ,
"Frontis ad urbanæ descendi præmia."

Few possess less inclination to enter into a polemical controversy on the construction of an obscure passage, than myself; but as I am accused of "being guilty of misrepresenting the meaning of an author,"* I solicit your indulgence to an explanation.

Mr. Whately, in a publication replete with much ingenuity, has endeavoured to inculcate the doctrine that gonorrhœa venerea is frequently attended with ulcerations in the urethra. In confirmation of this opinion, he has not only appealed to his own experience, in which he asserts he has had occular demonstration of their existence, but he further corroborates this opinion, by reference to some respectable authorities.

I will not question the accuracy of his observations, nor can I doubt the respectability of his authorities. That ulcers occasionally present themselves in the urethra, will not be denied; but it does not follow that these ulcerations are the necessary consequence of a gonorrhœa. The ingenious gentleman and myself, differ not so much about the *existence* of ulcers, as we do about their *production*. I have elsewhere,† briefly enumerated the various causes that may be supposed to contribute to this diseased state of the urethra; but it is extremely dubious, whether gonorrhœa may be considered as one.

At the present improved period of our anatomical knowledge, it will scarcely be doubted but that a puriform matter may be secreted from an inflamed surface, without any disorganization of structure. In catarrhal affections attended with an increased discharge from the Schniederian membrane, few, I believe, suspect the existence of ulceration in that delicate membrane: so, in the gonorrhœa, the dissection of executed criminals, as well as a variety of other cases, clearly demonstrate, after the most accurate investigation, that ulcerations in the urethra

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* Vide Medical and Physical Journal, No. 74, p. 328.

† Platt's Inquiry into the Efficacy of Oxygen in the Cure of Syphilis, p. 20.

thra during this stage of the disease, rarely ever occurs.

If more correct information than I have hitherto acquired, should detect the fallacy of my present opinion, I will willingly relinquish it; till then, a steady adherence to it, will not, I trust, be considered too pertinacious.

I am, &c.

Great Surry Street, May 1, 1805. CHARLES PLATT.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE ingenious Mr. Cuming, to whose valuable communications the medical world is much indebted, has, in a concise and well-written paper, on the "Use of Mercury in Venereal Affections," so compleatly deliverèd my sentiments, as to leave but little for me to say on the subject, except that of assuring him of my hearty concurrence in all he has advanced, and how often I have lamented what he has now so well expressed and commented on. I have ever been of opinion, that mercury, for the cure of Syphilis, is often rashly ordered, and inconsiderately persisted in, under peculiar circumstances, which, judiciously considered, should forbid its use, and be superseded by more appropriate remedies. In every consideration respecting the use of mercury, but one, Mr. Cuming has most ably anticipated me; and I feel greater pleasure in referring the reader to his truly-excellent observations, than to any of my own. The one he has unnoticed is, the use of this medicine during the inflammatory stage of that disease. On this subject I beg leave to offer a few remarks. Before I commence, I request to be indulged while, in order to prevent unnecessary quibbling about words or terms, I explain what I mean by the "inflammatory stage." The appellation may or may not be proper; I use it, however, simply to express the inflamed state of a venereal bubo, or of a venéreal node; and when, in the course of this paper, I use the word inflammation, I beg to be understood that I consider it in that light and in no other.

Whenever the venereal disease is attended with inflammation, I believe the exhibition of mercury to be hurtful and injudicious; and I have no hesitation in saying, that, in

in all such cases, the use of this powerful medicine should be suspended, and not had recourse to, until that inflammation is subdued by antiphlogistic remedies. Mercury acts as an irritant, and cures the disease by exciting irritation and fever; and though it will remove a venereal action, yet was it never known to lessen an inflammatory one; exhibited then where inflammation prevails, it can only increase it, and exasperate the disease; yet what so common, as to see practitioners freely using mercury in irritable people labouring under a highly-inflamed bubo or node? or who has not seen the same practice pursued in dangerous cases of phymosis and paraphymosis? Why is it we so repeatedly see suppurated, ulcerated, and phagadenic buboes? The answer to this query is simple: the consequence of the imprudent use of mercury, resolutely continued, in spite of excessive debility, high inflammation, threatened suppuration, or indeed any other impending evil, clinging to it, as if it were a sheet anchor on which all their dearest hopes rested! In the incipient state of a bubo, or a node, the administration of mercury is vindicable and proper, and, where no untoward symptoms present themselves, its use should be persevered in as long as may be deemed requisite; but if, on the other hand, the tumour becomes painful and inflamed, then should mercury be laid aside, and not again resumed until the inflammation has been removed by proper means; for what so likely to increase inflammation, and produce suppuration, as mercury, a medicine highly irritable? or what can have a worse effect, in occasioning an unfavourable disposition in a suppurating sore, than mercury? Mercury then, whenever inflammation appears in a bubo, should not be used. If we succeed in discussing this inflammation by antiphlogistic means, it is well; again we may resort to a guarded exhibition of this remedy; but if we fail in this, and see suppuration approaching, still we forbear from mercury; we hasten this process by warm applications; we make an early opening into the part; we continue them till all inflammation has left the sore; then, and not before, we return to mercury, and continue it according to circumstances. A celebrated physician, while condemning the free and unguarded use of port wine in uterine hæmorrhages, says, "no matter whether the pulse is a menorrhagic or a weakened one; still red wine is indiscriminately given." With much propriety may we parody upon this, while speaking of the use of mercury in venereal affections: no matter whether the disease be attended with inflammation, debility, or any other unpleasant

pleasant circumstance; still mercury is indiscriminately administered.

Some may cavil at what I write, and urge, in opposition to what I have asserted, that they have seen patients quickly recover under the practice I am now condemning. This I will not deny. On the contrary, I have frequently seen it myself; but, be it remembered, they did not receive their cure by good, but in spite of maltreatment. I might adduce many cases, if indeed any were necessary, to prove the superiority of the practice I am now recommending; the relation of one shall at present suffice:

A gentleman applied to me last winter, affected with a large chancre at the extremity of the urethra, accompanied with a bubo, considerably inflamed, and bearing indistinct marks of suppuration. The routine of practice I had been witness to in the early part of my life, would have induced me to have had immediate recourse to mercury; this plan of treatment, however, I did not pursue; I advised the black wash to be applied to the chancre, the application of warm poultices to the swelling, and a purge the succeeding morning. In three days the bubo was opened with a lancet; in three more the poultices were discontinued, and the tumour free from inflammation. Now I began with mercury; at this time the chancre was partly healed by the application of the calomel wash, and in less than three weeks he was compleatly well; nor was there the least vestige of the bubo remaining, except the scar made by the lancet. Had I in this case given mercury, in the first instance, I question much whether the cure would have been so speedy.

Speaking of mercury, it may not be foreign to the present subject, to consider what form of it is best adapted for the cure of syphilis. From observation, I am inclined to yield the palm of preference to mercurial frictions; this I conceive to be a safer and more accurate way of conveying mercury into the system than any other. The addition of a little camphor to the ointment I would advise, as tending much to facilitate absorption. Next to mercurial frictions, in my estimation, stands the blue pill. Other forms of mercury there are; but these are more or less doubtful: among the principal of these are, corrosive sublimate and calomel. Corrosive sublimate, though less certain than frictions or the blue pill, is yet a valuable medicine, particularly when it is necessary to saturate the constitution with mercury speedily, as in deep corroding ulcers, or venereal blotches; and in venereal ophthalmia, I have been

assured it is of infinite service. Calomel is a violent and unsafe remedy, and, in my opinion, not to be relied on for the cure of this disease. It has fallen to my lot to have seen this medicine repeatedly used in venereal complaints; sorry am I to say, often unsuccessfully. I have not unfrequently seen secondary symptoms in the course of a few months succeed primary ones, after a supposed cure by calomel.

It has been dogmatically decreed, by very high authority, that lues venerea is never attended with constitutional action. On this point there still remains great diversity of opinion, and probably this long-debated question may never be compleatly decided. From a minute retrospect of this disease, one would, upon a review of certain circumstances, be induced to dissent from this opinion, and believe syphilis to be really attended with constitutional action. This idea receives considerable strength from observation; for in the intermediate time of primary and secondary symptoms, it is no very unusual thing to see patients labouring under constitutional ailment, without knowing what cause to attribute it to. A singular case of lues venerea, which happened within the sphere of my own knowledge, in my mind strongly corroborates this idea.

A gentleman, who had formerly been the subject of chancre, but of which he believed himself perfectly cured, suddenly began to lose flesh, and find his general health gradually impair, with slight attacks of fever in the evening. Unconscious of the cause, he sought no advice, and thus went on for a few months, evidently sinking under ill health, with regular febrile attacks. It happened that he was under the necessity of performing a long journey in a carriage, where, being much exposed to night air, he caught cold, and found considerable uneasiness in his throat. This attracted attention: and on examination, upon his arrival at an inn, he, to his inexpressible surprise, discovered a large venereal ulcer, which had destroyed nearly one half of the tonsil gland. This explained the true nature of his complaint, and in due time mercury effected a cure. Here then is an instance of lues venerea preceded, for months, by constitutional action! I must confess, I should like to know if Mr. Cuming's ideas coincide with mine, respecting the use of mercury in those cases of the venereal disease attended with inflammation.

Though, Gentlemen, I do not conceive gonorrhœa to be venereal, or to require mercury for its cure, yet it may not be superfluous briefly to recite a curious case of one, which lately

lately happened under my care; curious, as it is a proof of the disease occuring six weeks and three days *post coitu*.

A young man, of an indolent though healthy constitution, had connection with a female, on the 27th of December, 1804, and, on the 10th of February, 1805, he became the subject of a virulent gonorrhœa, denoted by intense ardor urinæ, excessive discharge, and violent chordee. During the intermediate time, he had no intercourse with the sex whatever. Of this I am as certain, as if it had occurred in my own person. He had been thrice before the subject of the same disease; each of which appeared in the course of twelve days.

I am, &c.

Sunderland, May 7, 1805. G. P. DAWSON.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

BEING a well-wisher to society, I have taken the liberty of communicating some practical remarks, which, if you think worth noticing, you will have the goodness to insert in your very valuable Journal.

As medical men are occasionally called in to relieve *immediately, if possible,* internal inflammatory affections, I have found, after bleeding and emptying the bowels, the application of a small cataplasm spread on leather, or callico, composed of flour of mustard and vinegar, applied near the part, answer a much more immediately good purpose than the emplast. canthariḋ. by producing in a much shorter space of time a greater degree of external inflammation, and vesication if required, without affecting the urinary passages.

In cases in which poultices are necessary, the patient too often continues longer suffering by not having them very frequently changed; perhaps from not attending to the proper time of removing them, the difficulty of procuring bread and milk to form them, or other causes, a bullock's bladder, partly filled with water sufficiently heated, tied at the top, applied next the skin and covered with flannel, answers every good purpose: it retains its heat a length of time, and can easily be changed with little trouble and expence. I am, &c.

Westerham, March 24, 1805. J. BETHUNE.

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

A Treatise on febrile Diseases, including intermitting, remitting, and continued Fevers, eruptive Fevers, Inflammations, Hæmorrhages, and the Profluvia, in which an Attempt is made to present, at one View, whatever, in the present State of Medicine, it is requisite for the Physician to know, respecting the Symptoms, Causes, and Cure, of those Diseases: with experimental Essays, on certain febrile Symptoms; on the Nature of Inflammation; and on the Manner in which Opium and Tobacco act on the living animal Body. By A. Phillips Wilson, M. D. F. R. S. Edinb. Fellow of the Royal College of Physicians Edinburgh, &c. Vol. IV. 8vo. pp. 740. Winchester.

At length, the fourth, and last volume, of this useful compilation has appeared; nor have we any reason to recommend it less to our readers, than any of the former. We wish, indeed, the printing had been more correct. For this deficiency, an apology is made, that the author was deprived of the opportunity of superintending the press. But, if a proper printer could not be procured in Worcester, 'tis pity a medical friend in Winchester could not have assisted in this necessary office. Nearly a page of two columns of errata is marked; and these make very few of the numberless errors; from which, our readers will scarcely believe, even that the title-page is not free.

This volume contains the fourth section of chap. ix. on *Cynanche Trachealis*, or Croup; x. *Pneumonia*; xi. *Peripneumonia* Notha; xii. *Carditis and Pericarditis*; xiii. *Gastritis*; xiv. *Enteritis*. xv. *Acute Hepatitis*; xvi. *Chronic Hepatitis*; xvii. *Splenitis*, *Nephritis*, *Cystitis*, and *Hysteritis*; xviii. *Rheumatism*; xix. *Gout*. Book ii. consists of *Hæmorrhage*, *Phthisis Pulmonalis*; of *Profluvia*, which is confined to dysentery, and finishes the work on febrile diseases. An appendix follows, as mentioned in the title.

Of the volume in general, suffice it to say, that it is got up with the same diligence as the former; contains the same extent of reading, the same display of authorities, and the same judicious remarks, on all that are quoted. If the author has been less successful in maintaining his own theories, than in detecting the

errors

errors of others, in this respect he only stands on the same ground as most of his brethren. As the work professes but little novelty, we shall select those articles which, on account of late controversies, are the most interesting.

In the first article, *Cynanche trachealis*, we have a very accurate account of all the symptoms, and a collection of almost all the authorities worth producing on the subject. The author has chosen to blend acute asthma with it, on account of the similarity of many of the symptoms and method of treatment in each. In considering the remote causes of both these diseases, indigestion is admitted, on the authority of Dr. Underwood, as one of the causes of croup; and Dr. Millar is said, "with great probability, to rank laxity of the solids, indigestible ingredients in the food, and a morbid weakness of the digestive organs, among the exciting causes of acute asthma. This kind of climax, or ringing the changes of laxity of solids, indigestion, &c. is, in our opinion, ill suited to the dignity of a work which undertakes to teach practitioners how to reason. The subjects of croup are more commonly stout, healthy children; and the inflammation is of that kind which, in a particular manner, marks strong vascular action. Laxity of solids, and indigestion, may be considered as causes of any thing, or of nothing; for the first is an expression of uncertain import, and the latter may be assumed whenever a practitioner thinks proper. Even where we find it an attendant on acute diseases, it is more commonly the effect than the cause. We have been the more careful to mark this, because it cannot but influence the practitioner in his mode of treatment. Dr. Wilson, with much propriety, urges evacuations, particularly free blood-letting, if the physician is called early enough to arrest the inflammatory symptoms. But, if we attend to the appearance on dissection, and the proximate causes, they must surely instruct us somewhat, in tracing the remote cause.

"On laying open the trachea of those who die of the croup, there is a membrane lining but scarcely adhering to it, for it may always be easily separated without destroying its shape. It comes out in the form of a tube, exactly adapted to the cavity it lay in. In many cases, indeed, it cannot be said to adhere at all; and there is a considerable quantity of puslike matter, lying between it and the the sides of the trachea. This membrane often extends beyond the division of the trachea, lining the large branches of the bronchiæ, and loosely adhering to them. The purulent matter extends beyond the membrane, often into the smallest branches of the bronchiæ, and even, in some instances, into the air vesicles. Mr. Wood found it in these vesicles, in the 7th and 8th cases, related by Dr. Home. On removing it, there is no appearance of ulceration in the coats of the trachea and bronchiæ; but the traces of inflammation are, in general, very obvious, and sometimes extend, Burserius observes, to the very extremities of the bronchiæ. It has sometimes happened, as

as in more than one dissection recorded by Dr. Home, that no traces of inflammation could be observed; but this is comparatively rare.

"By squeezing the lungs, a considerable quantity of a whitish, glutinous fluid may sometimes be forced out. In different cases of the cynanche trachealis, the lungs assume, according to Burserius, all the different appearances observed after pneumonia, which are soon to be laid before the reader. Sometimes, however, they are quite sound. The appearances of the lungs, in those who die of the croup, Michaelis observes, are various: sometimes they are sound; sometimes slightly inflamed; sometimes there is a sanious matter extravasated in different parts of them; sometimes the matter found in them is purulent, and sometimes merely a watery fluid, the quantity of which is often considerable.

"Small polypous concretions are often found in the vessels of the lungs, and in the right side of the heart; never, Burserius observes, in the left side, or in the aorta. These concretions, I have already had occasion to observe, seem to be formed in articulo mortis; and the reason of their not being found, in this case, in the left side of the heart, seems to be, that the blood is chiefly collected in the right, as happens in all cases where death is induced by suffocation. It is also owing to the dyspnœa which precedes death, that the vessels of the head are generally found very turgid in those who die of the croup.

"The preternatural membrane presents different appearances, in different cases. Sometimes, Michaelis observes, it is as thin as paper; in other cases, so thick, that it almost fills up the whole cavity of the trachea. It is often of different thickness, in different parts; and the thickest part is sometimes the uppermost, and sometimes the reverse. In some cases, it is soft and pulpy; in other cases, so firm and tough, that it will bear maceration in water for several days; but however tough it is in the trachea, it becomes more tender in the bronchiæ, and is always soft before its termination. In some cases, it is quite white; in others, marked with red spots; and it is now and then uniformly of a dark colour, and sometimes even black. Some have thought this membrane possessed a vascular, others a fibrous structure; the former opinion appears erroneous, and the latter is not confirmed by general observation."

On the proximate causes, we have the following remarks, from different writers, and our author's conclusions:

"It is necessary to say something of the different opinions which have prevailed, respecting the nature of this complaint.

"With regard to that which refers its seat to the lungs, and attributes it to an inflammation of this viscus, it will readily be admitted to deserve no attention.

"The first probable opinion, suggested on this subject, was that proposed by Dr. Home. He believed the first seat of the disease

ease to be in the mucous glands of the trachea, which he supposes are excited to pour out an unusual quantity of mucus. 'When there happens,' he observes, 'a very great secretion of this coagulable fluid from the glands of the trachea in children, they are either not sufficiently attentive, or too young to spit it up. The thinner parts are carried off during expiration, while the remainder is thickened and compressed, by the obstruction which the narrowness of the glottis opposes to the exit of the air from a larger canal. Every circumstance,' he continues, 'encourages its concretion into a solid, firm membrane; while the more internal parts of the mucus continue still fluid, and the continual secretion of more keeps it separated from the parts below.'

"But Dr. Home explains the conversion of this mucus into pus, by experiments of Sir John Pringle; the inaccuracy of which I have already had occasion to notice. We have seen, besides, that the membrane may be formed without occasioning symptoms of croup; which, on the other hand, may exist without the formation of any membrane."

Dr. Rush's opinion follows; but this the author very properly considers as formed before Dr. R. had properly discriminated the disease. Michaelis considers the membrane as the cause of the disease; and that it is formed in the same manner as the polypi, found after death in the larger vessels. Our author very properly shows, that if the membrane is (like polypi) the effect of the coagulation of lymph, it must be formed in a different manner from those substances which can only occur by the coagulation of blood *in articulo mortis*.

Dr. Cullen's opinion next follows; which, like most of the physiological notions of that celebrated teacher, was connected with his favourite system of spasm. As, however, evident marks of inflammation appeared, and as antiphlogistic remedies were found necessary, he admitted this spasm to be connected with inflammation. But, says our author, who seems willing to concede as far as possible on this occasion, "what proofs have we of spasm on the glottis?" He afterwards adds, "Even inflammation is not always discoverable; but," says he, "it is far from being improbable, that the patient may die after the inflammation has ceased, the effusion being sufficient to occasion suffocation."

It is much to be regretted, that the eminent physiologist of London, whom all join in extolling, is so little read, or so little understood. The writers quoted by our author could not be well acquainted with those *fundamental principles of inflammation* which, by experiment, constant observations, and a mind formed to reason on the operations of nature, were established by Mr. Hunter. But all this was accessible to our author. It is, however, fair to make some allowance for the obscurity of language, of which Mr. Hunter was always accused, and which could not fail to be increased in a work published after his death. Yet a careful examination of part 2, chap. 4 (page 240 et seq.) would at once have solved

solved all the difficulties that Dr. Wilson met with, in reconciling the contradictory inferences drawn by his various authorities from the different facts admitted by them all. In these passages, and the others pointed out therein by Mr. Hunter, it will appear, that the different parts of the body are divided, by him, according to the nature of their surfaces, and their consequent capacity to take on different kinds of inflammation, into two orders. The first order consists of the cellular membrane and circumscribed cavities: the second, all the outlets of the body, commonly called mucous membranes; for instance, all the ducts of the glands and the alimentary canal.

The first order takes on the adhesive inflammation, in the first instance, preparatory to suppuration and ulceration. The adhesive inflammation consists of effusion of lymph; the coagulation of which, by uniting the parts together, serves to prevent the spreading of the inflammation, and, in case of future suppuration, to confine the matter from diffusing itself through the cellular membrane or loosely into the cavities. By these means, the disease is as circumscribed as possible, and the functions of the parts sustain the least injury. But, in secreting surfaces, the case is quite different. Should the adhesive inflammation take place, the function of the parts must be for ever destroyed, and the injury to the economy would be in proportion to the office of the part. Inflammation in these parts, therefore, runs immediately into suppuration, by an alteration of the secretion, without any previous effusion of coagulating lymph. There are instances, however, in which so violent an inflammation may be excited on these surfaces, as to induce a process similar in part to the adhesive inflammation; that is, instead of the suppurative process, or the change of the secretion from mucus to pus, coagulable lymph may be thrown out. But, in this case, it will not produce that general adhesion which takes place in the first order of parts. On the contrary, the lymph will either be loose in the canal, or adhering only at certain points; and, as soon as the first violence of the inflammation ceases, suppuration will commence, with an attempt to dislodge the effused coagula, by absorbing the adhering points, and by ejecting the rest by the outlet peculiar to the part. Mr. Hunter enumerates the various canals and surfaces in which he has seen this process. Among the rest, he mentions the trachea; and, to demonstrate that the difference in the effect of inflammation, in such parts, may arise from its greater violence, he produced the effect artificially, by injecting a strong solution of corrosive sublimate up the vagina of an ass. But that eminent physiologist was much too cautious to assert, because, in this instance, the effusion of coagula arose from the greater violence of the inflammation, that therefore no other cause would produce such an effect on secreting surfaces. On the contrary, he suggests, that, in some cases, the inflammation is of the erysipelatous kind; so that, should any other cause produce erysipelatous inflammation on secreting surfaces, the same ef-

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fect might follow, though the inflammation should not be particularly violent.

From these premises we may readily account for the prevalence of croup, at particular periods; as we well know, that certain constitutions of the air are productive of erysipelatous inflammation. The nature of the membrane, its consequent disappearance, and the purulent surface of the trachea, are also easily accounted for. After the first effects of the erysipelatous inflammation has ceased, if the disease is not particularly severe, the parts return to their common offices. Suppuration takes place as the effect of altered secretion, on such surfaces, and also to dislodge the parts of coagulum which adhere. Part of the coagulum is absorbed; the remainder is thrown up in different portions, sometimes so small as to escape detection, and to be swallowed by the young patient.

This knowledge of the ætiology of the disease would very much have assisted our author, in reconciling the different modes of treatment proposed by different physicians. We well know, that the endemic, at different periods, assumes different degrees of action, though the general form is the same, and, as he observes, that the different periods of the same disease require different modes of treatment. On this subject, it is but justice to add, that our author is very full and perspicuous. Perhaps he may show more caution, as to copious blood-letting, than is necessary. In the early stage of the disease, it must be continued as long as symptoms of high inflammation remain, for so long will the danger of an increased effusion of coagulum continue. Emetics also are highly serviceable, in producing a new set of actions, and on a new part of the system. However, it is unnecessary for us to dilate on this part of the subject, not only because Dr. Wilson has left little to add, but because, in diseases so violent, if the practitioner has not courage to assume a discretionary power, it will be in vain to instruct him.

We have been the more particular on this disease, because of the urgency of all its symptoms, and because, in our opinion, the causes and progress have not hitherto been marked with sufficient accuracy.

In the next chapter, on pneumonia, Dr. Wilson is particularly full. The frequent occurrence of the disease rendered this the more necessary. Throughout the whole, our author shows his former industry and perspicuity. Nor have we less to commend in his attempt at a proper distinction between this disease and the peripneúmonia notha. Gastritis succeeds, and the remarks are, for the most part, equally unexceptionable. Acute and chronic hæpatitis, with inflammation of the other viscera, according to their names, follow in order; and the mode of treatment being tolerably uniform, the author very properly dismisses the latter with a few general remarks.

The subject of rheumatism our author introduces by some very judicious remarks on the modern attempts at nosology. We have often regretted the number of hard Greek derivatives which boys, ignorant of the characters of that language, are taught at one of the

the British universities. These technical phrases are the choicest food for rearing coxcombs, whilst they prove the greatest incumbrance to the ingenuous student. But on this subject we shall leave our author to speak, who certainly would not, without reason, calumniate his *alma mater*.

"It is with little propriety, that either the chronic hepatitis or chronic rheumatism are arranged under the definition of phlegmasiæ. Dr. Cullen could not, however, have arranged them otherwise, without having made a material alteration in his system. Besides, the immediate connection of these with the acute forms of the disease, seems to afford an apology for the place which they hold in his nosology.

"The only method of forming an accurate system of nosology is, to class diseases according to their symptoms; and where we find the symptoms so dissimilar, and the nature of the complaints so much allied, we are at a loss how to proceed.

"Whatever is done in a system of practice, it would seem that in a system of nosology we ought to study the symptoms of diseases alone. If any other principle is admitted, the most dissimilar affections will frequently be classed together, according as the hypotheses of different writers lead them to conceive diseases are allied to each other. There is no better reason for arranging the acute and chronic rheumatism or hepatitis under the same order of diseases, than for arranging together any other complaints which insensibly run into each other.

"It would seem, that in forming a system of nosology, our study should be to select the symptoms which characterise each disease in its perfect form, and arrange those together whose symptoms are most similar, without attending to the various gradations by which diseases run into each other. Is it our aim, in forming such a system, to assist the learner, in enabling him to distinguish diseases? This is the simplest way. After he is acquainted with such a system, a single perusal of a system of practice will teach him the connection which diseases have with each other. This is not the purpose of nosology. Is it our aim, in forming such a system, to assist the practitioner? This is the way in which we shall be most successful. I have frequently had occasion to observe, that where the symptoms are similar, the modes of treatment generally are so likewise. Even according to this plan, indeed, we shall often class together very different diseases, because in their most striking features they agree. Synocha and typhus are classed together, notwithstanding they are very dissimilar in their mode of treatment. But by classing diseases merely according to their symptoms, we shall, I believe, class together a greater number of diseases whose treatment is similar than by pursuing any other method.

"To see into what errors our best nosologist was led, by losing sight of this principle, it is only necessary to peruse Dr. Cullen's order of Spasmi. It looks like a common receptacle, for the refuse of

of the whole nosology. This order is ready to receive every disease that is rejected by the others. Where is the similarity between hydrophobia and diabetes; between cholic and hooping cough, between dyspnœa and epilepsy, &c.? It may be affirmed, I believe, that there is no person, unacquainted with Dr. Cullen's peculiar opinions, who can point out for what reason these complaints have been classed together. If he was at a loss where to arrange any disease, it was only necessary for him to call it a spasm, and it found a place in one of the chief orders of his nosology.

"No attention to symptoms of diseases, perhaps, will enable us to form a perfect system of nosology. The difficulties are far greater than at first sight they appear to be; but there is reason to believe, that, by steadily pursuing this plan, we may approach more nearly to such a system than has hitherto been done. If this plan is confessedly the best, ought we not to proceed on it as far as we can; and when we meet with difficulties which cannot be overcome, point them out, and leave them to be removed by future observation, rather than give our systems the appearance of being complete at the expence of truth, or of proceeding on a principle which can be of little or no use either to the student or the practitioner. However ingenious, nay, however just a theory may be, it should have no place in a system of nosology, which is a mere classification of terms, whose sole objects are to give accurate definitions of the names of diseases, and class together those definitions which most resemble each other."

Our author proceeds to shew, that Dr. Cullen's definition of Rheumatism is defective. He then enters on a description of the symptoms, and follows the subject according to the order he has pursued in the rest of the work. The reader will find many useful remarks; and we particularly approve the cautions against a too long continued use of the lancet. If early copious bleedings do not succeed, the disease must be considered as chronic, and treated as such

Under the article gout, we are glad to find our author not only copy Sydenham's *picture*, but also acknowledge the obligations he owes. This he very properly accuses most writers, and, among the rest, Dr. Cullen, of neglecting. It is strange, that on subjects of philosophy men should not be anxious to strengthen themselves by such an authority, or that they conceive it possible their plagiarism would be overlooked when the sources are not only open to, but explored by every one.

Dr. Wilson is very careful to follow Sydenham throughout; and whilst he boldly asserts that gout is not to be ranked with common phlegmasiæ, instead of pointing out the difference, he satisfies himself with proving, from the authority of his guide, that bleeding is rarely to be admitted. At the beginning of the work a caution is prefixed, lest any thing here said should seem to reflect on Dr. Kinglake, whom our author asserts he had not read when his remarks were written. There can be no doubt of this, as no

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mention is made of the exhibition of cold water in this disease; a controversy we are the more surprised to see overlooked, as the practice is much older than the present generation. The whole of this section is fuller of caution than information. Whatever has been observed by others is faithfully recorded, excepting indeed, that the great pattern proposed for our imitation is not sufficiently followed through his manner of treating himself. Under the suspicion of a stone in the kidneys, Sydenham informs us, it was his custom to take a purge once a week, and this he did without any greater recurrence of gout, than what was easily obviated by an opiate on the evening after taking his purge. It is not our business to reconcile the discordant opinions which have ever been promulgated concerning this disease; and we are ready to give our author credit for the impartiality with which he produces authorities from all quarters. But we wish he had done this, reserving his remarks till the conclusion. His own opinion might then have been fairly canvassed. Instead of this, we have, at the close, or in the midst of each writer's practice, a set of bye remarks, which show the author is averse from all bold remedies. Cold, being the most successful of all, he considers as the most dangerous; and concludes with admitting flannel and well-combed wool as the safest topical remedies, because, if they do no considerable service, they at least do no harm. We shall conclude our remarks on this chapter, by wishing that our author had consulted Dr. Hebberden's commentaries before he finished this part of his work.

The chapter on hæmorrhage affords nothing new. That on phthisis pulmonalis is very full, but chiefly of the observations of other writers.

Under the article profluvia, we have an ample description of dysentery, with the opinions of a variety of writers, and some good remarks of our author. We must, however, except his extreme caution on the subject of blood-letting. For common practitioners these cautions may be of little consequence, as the disease is rarely serious in these temperate regions, as long as men live in what may be a natural state of society. But in the warmer climates, in camps, or in that unnatural state with which the military life is attended, early and free bleeding is often necessary, to arrest the violence with which every disease assails a constitution under such circumstances. A great deal of the contrariety of opinion remarked by Dr. Wilson might have appeared less striking, if he had considered that he was quoting two distinct classes of writers, the military and civil physicians.

Among the cathartic remedies, our author considers ipecacuanha, in small doses, as the most deservedly celebrated. He is, however, much more sparing, in producing his authorities for this, than in favour of other remedies. In his own practice, he discovers something more than a mere cathartic quality in ipecacuanha, viz, "the relaxation it produces on the skin, which is always accompanied with a tendency to similar relaxation in the alimentary

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canal." That is, if we understand him, that the great increased action of the intestines is diminished; and for this purpose the remedy was usually exhibited, till Dr. Cullen gave it as his opinion, that it had no virtues but that of purging. This is, however, by no means certain. The cathartics produce their effect by restoring, in some measure, the natural action of the peristaltic motion, and by lessening the tendency to inflammation. Ipecacuanha, by its nauseating property, lessens the high irritation and consequent unnatural action of the canal. For these reasons, the latter is found a very feeble remedy in camp dysenteries, though highly serviceable in common practice

An appendix is added to this volume, containing three essays: two of them experimental; one on the manner in which opium acts on the living animal body, the other containing similar experiments on tobacco. In the first, the author examines, with much candour, what has been done by his predecessors, and afterwards adds his own experiments. The result of the whole is, that opium produces no effect but on the parts to which it is substantially applied, either by immediate apposition, or by the absorbents and blood-vessels; that is, that when it affects the head it must be injected on the brain, or carried thither by the blood-vessels: that if it affects the heart, when injected into the abdomen, it arises from the extreme vessels being paralyzed, and the blood, in consequence, accumulated in the heart; that the nerves are only affected as they come in contact with the opiate solution itself, and not by sympathy.

In the experiments on tobacco, similar results followed.

The third essay is on the doctrine of sympathy of nerves. This abounds with close reasoning on well-established facts. Without doubt, the sources of sympathy are various, seemingly dependent on absorbents and other vessels, as well as nerves, and, in many cases, we are apt to confound associations with sympathy.

Such are the contents of this useful volume, which we heartily recommend to the young practitioner. Impartiality, however, obliges us to dismiss the article with two remarks. The first is, that, in most acute cases, we discover too much caution in the treatment of early symptoms, without impressing the young practitioner sufficiently with the importance of decisive measures during that period of the disease. The second is, that, though, by the number of quotations from all quarters, it is evident the whole has been compiled with much diligence, yet the inattention to modern authorities makes us suspect the work has been concluded several years ago, and, in the revision, that the author, probably on account of professional engagements, has not sufficiently attended to contemporary writers.

A General Treatise on Cattle, the Ox, the Sheep, and the Swine, comprehending their Breeding, Management, Improvement, and Diseases; dedicated to the Right Honourable Lord Somerville. By John Lawrence, Author of the New Farmer's Calendar, Modern Land Steward, &c. &c. Octavo, pp. 635. London.

This appears to us, a good practical book. We pretend not to be competent judges of farming; but we have been much struck with the medical department, which is divested of the nonsensical physiology of pretenders to a knowledge of the diseases of cattle. The descriptions of some of the maladies are too short, but they are not likely to mislead any one by the obscurity of the language, nor to puzzle a clown or make a philosopher smile by the wildness of the theories. The proposed remedies are also simple and rational, and we hope, in the next edition, the work will be extended to two volumes, and this department proportionally enlarged.

A Botanical Dictionary, or Elements of Systematic and Philosophic Botany. By Colin Milne, LL. D. Author of Institutes of Botany and Habitations of English Plants. Third edition, revised, corrected, and very considerably enlarged, illustrated by twenty-five plates. Octavo. London, 1805.

This work contains a great deal of Botanical information, conveniently disposed and accurately compiled. The plates are well executed, and very numerous, the style simple and clear, the descriptions accurate, the remarks well founded, and the arrangement as compleat as the nature of the performance admits. We think, however, this edition might have been enlarged in some parts without injury to the purchaser.

Under the article "Sexes of Plants," we were surprized to see no notice taken of Spalanzani's numerous experiments. Mr. Knight's experiments too, of impregnations with different pollen, should have been at least hinted at. Whether all the advantages the inventor promises have been experienced by others, we have been unable to learn.

With all these and other smaller omissions, we congratulate our readers on the appearance of this edition, and recommend it to their perusal.

Dr. Jackson, on the Treatment of Fevers.

(Continued from pp472.—475.)

When due preparation has been made by unloading the sanguiferous system, when necessary, and clearing the primæ viæ, Dr. J. proceeds to his grand remedy, Bathing. In his hands this appears to be almost a specific. Dr. Currie had informed the public, in England at least, of its great utility in the cure of fever, when

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certain conditions are present, and of its danger when other conditions are present; but Dr. J. has taught us how to produce by art those requisite conditions, by which means the utility of bathing is rendered almost universal. Although this veteran in febrile practice has much improved every part of the treatment of these formidable diseases, yet we consider his mode of applying water as by far the greatest improvement that he or any other practitioner ever made. Impressed with this conviction, our readers will naturally expect a pretty full detail of his instructions and discriminations on this subject. We shall not disappoint them.

"When the perverted motions which obtain in fevers, or rather, in which fevers consist, have been arrested by the effects of bleeding, emetics, or other means; or, though the motions be not actually arrested, when susceptibility of impression has been restored, by these and other suitable processes; the next, the great and the final effort, is directed to the means of bringing back a movement, similar to that of health. When the impression of the cause of diseased motions has been removed; or when the condition, under which it acts, has been changed, or weakened, the application of the common stimulants of life is often sufficient to recall the natural movements of the machine. Where this is not the case, and there are many instances where it is not, the attainment of the effect is committed to other powers. Of these, bathing, that is, the application of water to the surface of the body, alternately warm and cold, has a powerful operation; and it is considered, with justice, as a most powerful means of originating new motions. This remedy has been known since the time of the Emperor Augustus; and its use and management were well known to Galen, and well defined by him. It farther appears, by the relations of travellers, to have been, and to be even now, a practice with several of the Eastern nations. It was tried by Dehahn at Warsaw, in the year 1737; and rubbing of the body with snow, a process somewhat similar, but still more effectual than cold bathing, was employed by Samoilowitz in the plague of the year 1771. These facts existed, but they seemed not to have made any impression; for bathing in fevers, has not been reckoned among the regular means of regular physicians, till very lately. It has now attracted some notice in England,—a notice chiefly due to the popular manner in which the subject has been treated by Dr. Currie, of Liverpool; for though the remedy has been employed by the author for near thirty years, that is, since the year 1774; and though the knowledge of it has been before the public since the year 1791; as well as that the fact had been communicated to several persons before that time; it is not probable that it made much progress, in consequence of his recommendation.

"In the year 1774, cold bathing was not a remedy commonly recommended by medical teachers, or medical writers, in the cure of fever. The hint, here acted upon, first suggested itself

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from the relation of a fact mentioned by a seafaring man, who had been master of a transport ship at the siege of Havannah. In noticing cursorily, among the events of that service, that several of the men, who were on board of his ship (which was a kind of hospital ship), threw themselves into the sea in the delirium of fever, that some were drowned, that others were recovered from the waves; it was asked, if he recollected what was the effect upon health. He had noticed the fact, and remembered the event:—the delirium ceased, and the greater number recovered. The fact, which was candidly expressed, made a strong impression. An opinion was suggested by it, and that suggestion was strengthed by an event which occurred in the island of Jamaica, early in the year 1774. A negroe child was lying in a piazza, apparently within a few minutes of death, in the secondary fever of small-pox. A pail of water was by chance at hand, the presence of which probably connected the ship-master's relation with the present case. The negress who attended the child was desired to sprinkle its face and breast. It was done;—the effect was striking; for the apparently dying object was instantly revived. The effect, however, was only temporary; the former state recurred again; the affusion was repeated, and the effect was similar.—By repeating this process at intervals, life was preserved for upwards of twelve hours, when apparently it could not have gone on, without such means, for as many minutes. The effect was singular,—similar to what follows the affusion of cold water upon a dying fish, the subject of the experiment reviving and sinking alternately, according as the means were employed or withheld.

"With the relation of what happened at the Havannah in mind, and the example of what happened to the negroe child before the eye, the subject of cold bathing strongly attracted the author's attention. The practice, in short, was adopted by him in the year 1774. It was tried without fear; and the effects were favourable beyond expectation. It was employed freely in the West Indies: and it was even tried in England, prior to the year 1791, though only in a few instances; for the prejudices against such a remedy were not so easily to be overcome. The experiments of the practice have, however, been so numerous, and the proofs of the benefits so multiplied, so varied, and so amply extended in different climates, and in different conditions of disease, during the late war, that the memory of what happened in the preceding period may be allowed to be superseded, or blotted out. Since the year 1791, that the author's treatise on the fevers of Jamaica made its appearance, his experience has been exercised in an ample field; and his opportunities of witnessing the effects of bathing, have probably been greater than those of any other person in Britain, probably than any other person in Europe. Without predilection in favour of a remedy, of which, though not the discoverer, (for the discoverers are not of this age or country,)

he

he assumes some claim in defining the principle which ought to direct the application; he does not hesitate to say, that, if there be a charm among the means employed for the relief, or abrupt cure of fever, it is found in a judicious management of warm and cold bathing. The proofs are not confined to solitary instances; for it has occurred almost daily, that persons who had entered the bathing room, under symptoms of the most threatening aspect, have demanded their clothes, that they might return to their military duties, after the routine of operation performed in this place was completed, — a routine, of which bathing was the last and most important part. In fevers of a certain form, in a certain stage of progress, or after a certain preparation, the effect is generally decisive of health.

" But in order to be able, in all cases, to employ so powerful a remedy with advantage, it is previously necessary to investigate minutely, and establish demonstratively, the principle upon which it acts fundamentally, as well as to define correctly, the circumstances, which favour or oppose its successful operation. Bathing, like every other power in nature, acts upon the excitability of organism, and produces, more obviously than most others, an effect upon organic movement. It is immediately applied to the surface of the body, it consequently acts upon the surface, and produces effects, corresponding with its own power, and the capacities of the part upon which it acts. From attending minutely to the circumstances of the conditions, in which it appears to produce the greatest change or greatest good; susceptibility of impression, with a power of producing action, termed excitability, seems to be that alone, which is uniformly and radically connected with its operation. According to the degree of this condition may be estimated, *à priori*, the effect of the means. The means are in this case applied to the surface; and as the change produced, is in proportion to the power of the cause, and the condition of excitability of the part, to which the cause is applied; so the effects are proportionally most remarkable, where the surface is most excited,—or most excitable. The balance is then ticklish, and a new train of action originates from a slighter cause.

[To be continued.]

Report of Diseases in the public and private Practice of one of the Physicians of the Finsbury Dispensary, from the 20th of April, to the 20th of May.

Rheumatismus - - -	14	Menorrhagia - - -	7
Phthisis - - - - -	5	Fluor albus - - - -	8
Catarrhus - - - -	11	Asthenia - - - - -	24
Pneumonia - - - -	2	Hydrops - - - - -	9
Diarrhœa - - - -	6	Pneumatosis - - - -	3
Dysenteria - - - -	1	Morbi Cutanei - - -	14
Febres - - - - -	2	Morbi Infantiles - -	27
Amenorrhœa - - -	16		Several

Several cases have occurred lately of imaginary phthisis. Nothing is so common as to mistake simple debility, and its natural consequences, for a diseased affection of the pulmonary organs. On which account, in cases of debility, remedies are continually applied, which, instead of alleviating, are calculated merely to aggravate its degree, and to perpetuate its continuance.

The patient more frequently dies of a consumption of medicine than of a consumption of the lungs.

Two instances of fever have this last month been under the care of the Reporter, which, although alarming from its violence and duration, as well as from the constitution and previous habits of the subjects of it, have experienced relief, and have been brought into a convalescent state, by appropriate and energetic applications.

Except in cases of a natural or artificial old age, or, in other words, when the constitution has been exhausted either by intemperance or by time, no person *ought* to die of fever.

To this opinion, which the writer ventured publicly to advance, in one of his Reports, nearly six years ago, every day of his subsequent experience has afforded additional confirmation.

Where there is no mutilation of structure, the spark of life may, by careful and skilful management, be preserved, as long as there is left any fuel to support it.

An incalculable number of lives are diurnally sacrificed to an ignorance of this doctrine, or to an insufficient capacity of applying it to professional practice.

The well-being of the human race has not suffered so much even from politcal or religious, as from medical ignorance and superstition. The vulgar, and what are considered established axioms or dogmas, with regard to physic, inevitably lead either to a miserable scepticism, or to an essential and destructive depravity of judgement.

"I was (says the celebrated Dr. Brown) for the space of fifteen years engaged in endeavouring to comprehend and apply, in learning and in teaching, the doctrines of the schools. After consuming more than half this time without satisfaction, or consciousness of either instructing myself or others, I began to deplore the science of medicine as incomprehensible and uncertain; till, at length, truth flashed upon my mind, and occasioned the same delightful feelings which the dawn of day produces on a

wandering

wandering and benighted traveller—*quasi prima diurna lux demum adfulsit*.*"

J. REID.

Grenville Street, Brunswick Square, May 26, 1805.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE following Extract of a Letter from Mr. Shoolbred to Dr. Jenner, dated Calcutta, June 21, 1804, cannot fail to be interesting to your readers.

"Notwithstanding the encouragement afforded by Government, and the zeal of individuals, we shall still have many obstacles to encounter, and great opposition to overcome, before the practice of Vaccination can be rendered general in Bengal. But in the other parts of Hindostan, where inoculation for the small-pox was not previously used, and where, consequently, there exists no class interested in prejudicing the natives against it, we may reasonably expect it to spread more rapidly.

"If my report had been two days longer in coming from the press, I should have had the satisfaction of announcing a circumstance that cannot fail to have great weight in its favor, over an extensive region in India; which is, that our late enemy, now our ally, Dowlut Row Scindia, the Chief of the Mahratta Empire, has had one of his children, some say his only child, vaccinated at Ongien; an example which, we may naturally hope, will be soon generally followed throughout his large and populous dominions.

"This sensible act of the head of the Mahrattas, who are all Hindoos of high cast, shews in a very strong point of view, that it is on no essential point of religion the Hindoos of Bengal object to the new practice; but merely from prejudice instilled into their minds by the interested

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* To the author of this article, few circumstances of his life have afforded a higher degree of satisfaction, than the share he has had in the education of a number of intelligent students and incipient practitioners of medicine, who, he flatters himself, have left him with minds impregnated with a knowledge, and penetrated with a conviction of the truth and importance of the Brunonian system, which, although not without its alloy of error, is the only one that, in its fundamental principles, rest upon the firm and indestructible basis of a genuine phoilsophy.

ed inoculating Bramins, founded on some indistinct notion of the disease coming from the cow; they know not in what manner, but, as they profess, in a way which renders it impure to them, and consequently unfit for their adoption. I am not without hopes, however, that we shall in time win over to our side a few of the principal men amongst these inoculators; and thus prevail upon some of the higher class of Hindoos, in Calcutta, to have their children vaccinated; after which we shall have less difficulty in extending its benefits to the middling and lower classes of the natives."

In addition to the cases of small-pox, occurring in those who are supposed to have had the disease, I beg leave to add the following.

The first was communicated to me by Mr. Swain, Surgeon, of Mitcham. Miss Worsfold, of Epsom Court, was inoculated by the late Mr. Prowton, of Tower Street; who assured her that she was safe from future infection. Three years after, she caught the disease of her sister, and died of it.

Mrs. Thompson, No. 10, Burleigh Street, Strand, had a disorder, supposed to be the small-pox, at South Moulton, in Devonshire; and was attended by a gentleman of considerable reputation, who entertained no doubt of the nature of the disease. She was afterwards repeatedly exposed to the infection by her mother, and frequently lay on the bed, and sat on the lap of those who had the small-pox; but still resisted infection. After coming to London, she caught the small-pox; and had it in the confluent way, of which the most evident marks remain.

By a letter from Mr. Bell, Surgeon, of Wigton in Cumberland, I received the following information. A child of Mr. Graves was inoculated for the small-pox when a year old. His arm inflamed, but no pustules appeared on the body. Mr. Bell inoculated him a second time, together with a younger child, his sister. His arm inflamed for a few days; while in his sister's arm a pustule rose, and appeared to run through its usual course. These two children have since had the small-pox; one of them in a severe manner, attended with delirium. Another child, who had been vaccinated, associated with them, and slept with them during the whole course of the disorder.

A few days ago, the Earl of Westmeath called on Dr. Jenner, and informed him, that one of his children, who had been inoculated for the small-pox in Ireland two years ago,

ago, by an eminent inoculator, who had declared him safe, was then labouring under the confluent small-pox. His lordship told Dr. Jenner, that he thought it his duty to acquaint him with the circumstance; and Dr. Jenner obtained permission for me to see the case.

I saw the child with Dr. Jenner and the Reverend Mr. Jenner. We found him a miserable spectacle, covered with the small-pox from head to foot; and the fetor emitted by the pustules was almost intolerable.

I have also lately seen two cases, one at Clapham, the other in Edgware Road, in which persons supposed to have undergone vaccination, had the small-pox. These cases I went to see by desire of Mr. Forbes and Mr. Griffiths, by whom the patients were vaccinated. Whether the operations were perfectly successful, or whether imperfect, it is impossible for me to say; but the small-pox appearing in a very mild form, I am rather inclined to suspect the latter. Otherwise it must be allowed, that they are exceptions to the general rule; and that the cow-pock is not always a preventive of the small-pox.

I have also seen three other cases, one in Potier's Place, Bermondsey Road; another in Stangate Street, Lambeth; and another in Clement's Passage, Clare Market; in which the small-pox occurred after supposed vaccination. If the accounts of the parents are to be depended on, no genuine cow-pock was produced in these cases; but either spurious pocks, or mere suppurations, followed by yellow or light brown scabs, not leaving proper characteristic indentations.

In the Medical and Chirurgical Review for May is a case of supposed small-pox after vaccination; in which it is stated, that the progress of inoculation was regular; and that the cicatrices were as strongly marked as usual. This, however, is what I must deny. The mother assured me, in the presence of Mr. Burnet, and again since that time, that the scabs which remained after the pocks were not of a dark colour, but of a light brown; and Dr. Croft, when he called to inform me of the case, told me that the scars were rather superficial; which, on examination, I found to be true.

The other child in the same family had deeper scars, and proved far less susceptible of the small-pox. She was vaccinated at the Small-pox Hospital two years after her brother, when a little more caution was observed in taking matter. As she slept with her brother, when covered with the disease, it may easily be supposed that many,

many, if not all of her pustules, were *local,* from the application of variolous matter; and that the constitutional symptoms were the result.

Whether the case of Mary Hart, which occurred in 1803, and was not equally investigated, was the small-pox or not, it is impossible now to determine. If it was, and if five hundred more of those who were inoculated at the Small-pox Hospital, with matter taken at a late period, and sometimes from under a dry scab, have since had the small-pox, it cannot excite the least surprise, nor ought it to produce any other effect, but to inculcate more caution for the future.

The next is a case of a child, at No. 13, Stacey Street, Soho, vaccinated by me, lately put to the test of variolous inoculation by Mr. Powel, of Manchester Street. That the process of vaccination was complete no one can doubt, since matter was taken from this subject by Dr. Jenner, to inoculate the child of a nobleman; but Mr. Powell was mistaken in the result of his experiment, from supposing that when a patient is put to the variolous test, no constitutional indisposition should take place.

The contrary, however, is well known; as proofs of which, I need only mention the cases which occurred in the practice of Mr. Goldson and Dr. Rollo. The same thing occasionally takes places in those who are put to the same test after the small-pox.

In the present instance, there were two local pustules in the arms, but no eruption appeared in their neighbourhood; contrary to what usually happens in those who have not previously had either the small-pox or the cow-pock. The pustules on the arm were attended with a considerable itching, and the child scratched them at a very early period; which, his mother informs me, occasioned Mr. Powell to say, that it would prevent them from rising. This is a symptom commonly attendant on those cases, where patients are put to the test.

Mr. Powell himself informs me, that on the eighth day the head of one of the pustules was off, in consequence of scratching, and the inflammation increased. This is precisely what commonly has happened in such cases, particularly at Portsmouth, Woolwich, and Harrow. Hence it is easy to account for pustules in other parts, in consequence of a second inoculation with the nails.

Mr. Powell inoculated a child from one of the pustules on the arm, and produced small-pox. The same might have been done from his own arm, had he made himself the

the subject of the test. On the eleventh day two eruptions appeared; one on his leg, the other on his groin. This is no wonder, since, independent of the cause already assigned, there were two others, either of which might have produced twenty such eruptions as occurred in this case. First, the child had constantly slept with the other during variolous inoculation; and, secondly, his mother handled them both by turns.

The only secondary pustule which yielded matter, was that on the leg; which may well be supposed to have originated from the insertion of matter on Friday night, when the primary pustule was ruptured, since it appeared on the third day, and yielded matter on the fourth. It is necessary to remind those who are not very conversant in this subject; that in such as have previously had the small-pox or cow-pock, the pustule excited by inoculation is more early and rapid, than in such as have not had either disorder. Dr. Squirrell recommended that the child should be thrown into a good sweat, in order to produce a plentiful crop, but his advice was not followed.

One eruption appeared on the lip, and three under it; constituting about half the number that was discovered. These, with one or two on the forehead, appeared on the twelfth day, and turned on the fourteenth.

If we allowed that this child had the small-pox after the cow-pock, we must also allow that his mother had the small-pox a second time; for she had two variolous pustules, one on her breast, and the other on her chin, from nursing the child who was under inoculation of the small-pox. The pustule on her chin was larger than any one of those on her son; although her skin may be supposed to be less irritable than that of so young a subject.

Mr. Powell observes, that on the seventh day from the eruption of those on the leg and groin, and the fifth of those in the face, the pustules had totally disappeared; leaving only very *small, dark, horny scabs*. It is worthy of notice, that the pustule on the leg appeared before those on the face, contrary to what generally happens, when the pustules are the effect of fever. We have therefore great reason to believe, that the only real variolous pustule was the effect of inoculation or contact.

This case was seen by Mr. Serjeant, of Prince's Street, Cavendish Square; Mr. Leese, of East Street; and Mr. Fernandez, of Lamb's Conduit Street; who can testify the truth of the principal facts here detailed.

I am, &c.

New Street, Hanover Square. JOHN RING.

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Dr. LIND, in a Letter to Dr. BATTY, dated Windsor, 9th April, 1805, writes as follows:

"Dear Sir,

"The enclosed was sent from Bombay, by my brother-in-law, lieutenant colonel Mealy, as a curious and authentic piece of intelligence respecting the cow-pox. If it proves of any use to you, I shall esteem myself happy in having had it in my power to communicate it to you.—If you should meet Mr. Mac Gregor, Surgeon to the Royal Regiment of Horse Guards, who is at present in London, and sometimes visits Sir Joseph Banks, he knows Mirza Mehedy Ali Khan, and can give you information respecting the cow-pox at Bombay."

Translation of a written Memorandum from the NAWAUB MIRZA MEHEDY ALI KHAN, *now at Bombay.*

During the period of my abode in the district of BENARES, my eldest son being taken ill of a bad kind of the small-pox; and my friends interesting themselves for my comfort and his relief, one of them, named Slookum Chund, a Hindoo, pointed out to me that there was in the city of Benares, one Alep Choby, a Brahmin from Owd, whose practice was chiefly confined to this malady. Him I therefore lost no time in sending for to the town of Ghazeepoor, where I dwelt, and he arrived on the ninth day of the eruption. On seeing which he observed, that if the eruption had not taken place he would have endeavoured to facilitate and render it easy; but that now it was too late. On asking Choby what his process was? he said, "From the matter of the pustule on the Cow, I keep a thread drenched, which enables me at pleasure to cause an easy eruption on any child; adoring at the same time BHOWANNY, (who is otherwise called DEBEE, MATA, and SEETLA, and who has the direction of this malady) as well in my own person as by causing the father of the child to perform the like ceremonies; after which I run the drenched string into a needle; and, drawing it through between the skin and flesh of the child's upper arm, leave it there; performing the same operation in both arms, which always ensures an easy eruption.—On the first appearance of which, the child's father, or guardian, renews his worship to BHOWANNY; and as the animal this Goddess rides on is an ass, it is customary for such parent, or guardian, to fill his lap with grain, which an ass is sent for to eat up; which observances ensure the propitious direction of BHOWANNY, so that only a very few pustules make their appearance; nor does any one die under this process!" Thus far did I learn from ALEP CHOBY.

Upon

Upon referring on this subject to a native, well-versed in the learning and customs of the Hindoos, he told me that the practice thus described by Choby was not general among them; but confined to those who where attached to the worship of Bhowanny, and adored her with implicit faith—and upon my asking this person, whether he was aware how the matter of the pustule was got from the cow, and whether all cows had such pustules, or only those of a certain description? He answered, that on these points he possessed no information; but had certainly understood that the cows had these pustules break out upon them, and that from the matter thereof children were infected; acknowledging, however, that he spoke not this much from ocular knowledge but from report.

A few months since a female child was born in New-York, America, whose ureters, instead of terminating in the bladder, according to the usual course of nature, discharged the urine externally a little above the pubes. In this monstrous conformation the mons veneris seemed to be wanting, and a reddish carnosity to occupy its place. Through this there were two orifices, corresponding to the two ureters. The urine constantly trickled from them, except when, after a time of rest, the child suddenly struggled or cried, and then it would spirt forth from both openings in a continual stream. The presumption, of course, is, that the bladder is wholly wanting. The genital parts partake somewhat of this odd configuration; and the umbilicus is considerably lower, and the anus further forward than common. In other respects the infant hitherto seems to be well formed, and in good health.

Mr. Manning, sculptor, No. 14, Warren-street, Fitzroy-square, London, formerly pupil to the late Mr. Bacon, has modelled from the life a bust of Dr. Jenner, which is now in the Exhibition of the Royal Academy, Somerset House. This model, which has been honoured with the approbation of the best judges, and is allowed to be an admirable likeness of Dr. Jenner, he intends to publish. The terms are three guineas; one half to be paid at the time of subscribing, the other half on the delivery of the bust. The casts will be delivered in rotation, as they are subscribed for.

Dr. Adams, author of Morbid Poisons, is unanimously appointed to succeed Dr. Woodville as physician to the Small-Pox and Inoculation Hospitals. We rejoice that a person so well qualified for the situation, and one who has always been so zealous a promoter of vaccination, is placed in a station where he can render so much service to the cause.

M. Biot has succeeded in forming water from hydrogen and oxygen, by compression only, independently of the electric spark. The compression, by bringing the particles of gas into intimate union, makes them throw out a quantity of heat sufficient to set them on fire. Great caution is necessary in making the experiment.

In a few weeks will be published a work, entitled, "Observations on the Simple Dysentery and its Combinations," containing a review of the most celebrated authors who have written on that subject, and also an investigation into the source of contagion in that and some other diseases. Previous to its publication a prospectus may be had gratis of all the medical booksellers. This interesting subject has, we understand, long engaged the attention of Dr. HARTY.

An Enquiry into the Nature of the Disease which so lately prevailed at Gibraltar; with Remarks on Epidemic Fevers in general, and on the recent proceedings of the Society for bettering the condition of the Poor relative to the prevention of Contagious Malignant Fevers in the Metropolis, is preparing for the press, by SEGUIN HENRY JACKSON, M. D. &c. &c.

Mr. PARKINSON, of Hoxton, has a work in the press, on the Gout, in which he purposes to consider of the modes recommended for the cure of this disease, and to offer some remarks on its nature and origin.

Dr. REID, of Grenville Street, Brunswick Square, will recommence his Lectures on the Theory and Practice of Medicine, on Tuesday the 25th of June.

ADDENDUM ET CORRIGENDUM.

The following postscript to Dr. WALKER's letter, p. 541, came too late for insertion in its proper place.

"P. S. To the above extracts, which I have taken the liberty of sending you for public good, without waiting the permission of Dr. Jenner, and for which I trust he will pardon me, I can now add, from a later letter, another fact on the very curious and interesting case."—'The child having herpes was put to bed to her brother, labouring under the small-pox; but still it remained proof against the infection, both of the small-pox and cow-pock, until the herpes disappeared, which had continued from the first till the ninth year of her age.

"P. 540, l. 20, for time *and*, read time *of* appearance,"

To CORRESPONDENTS.

Mr. Cabani's Work, entitled, "Coup d'OEil sur les Revolutions & sur la Reforme de la Medicine," will be reviewed in our next Number.

Communications are received from Mr. Cribb, Mr. Pulley, Mr. Simmons, Mr. Bishop, Dr. Kinglake, and Medicus.

END OF VOL. XIII.

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